

Summary of Correspondence Analysis for *Rhodopseudomonas palustris*

The input file contained 4815 genes

The number of axes generated was 58

A COA was requested of relative synonymous codon usage (RSCU)

The total inertia of the data was 0.372258

Explanation of the variation by axis

| Num. | Eigenval. | R.Iner. | R.Sum | Num. | Eigenval. | R.Iner. | R.Sum |
|------|-------------|---------|---------|------|-------------|---------|---------|
| 01 | +4.7483E-02 | +0.1276 | +0.1276 | 02 | +1.7009E-02 | +0.0457 | +0.1732 |
| 03 | +1.5486E-02 | +0.0416 | +0.2148 | 04 | +1.3096E-02 | +0.0352 | +0.2500 |
| 05 | +1.2852E-02 | +0.0345 | +0.2845 | 06 | +1.2106E-02 | +0.0325 | +0.3171 |
| 07 | +1.1831E-02 | +0.0318 | +0.3488 | 08 | +1.1425E-02 | +0.0307 | +0.3795 |
| 09 | +1.0719E-02 | +0.0288 | +0.4083 | 10 | +1.0464E-02 | +0.0281 | +0.4364 |
| 11 | +9.5837E-03 | +0.0257 | +0.4622 | 12 | +9.2061E-03 | +0.0247 | +0.4869 |
| 13 | +8.9175E-03 | +0.0240 | +0.5109 | 14 | +8.6428E-03 | +0.0232 | +0.5341 |
| 15 | +8.4581E-03 | +0.0227 | +0.5568 | 16 | +8.3353E-03 | +0.0224 | +0.5792 |
| 17 | +8.1346E-03 | +0.0219 | +0.6011 | 18 | +8.0389E-03 | +0.0216 | +0.6227 |
| 19 | +7.6388E-03 | +0.0205 | +0.6432 | 20 | +7.4840E-03 | +0.0201 | +0.6633 |
| 21 | +7.0969E-03 | +0.0191 | +0.6823 | 22 | +7.0563E-03 | +0.0190 | +0.7013 |
| 23 | +6.8591E-03 | +0.0184 | +0.7197 | 24 | +6.7253E-03 | +0.0181 | +0.7378 |
| 25 | +6.5684E-03 | +0.0176 | +0.7554 | 26 | +6.3600E-03 | +0.0171 | +0.7725 |
| 27 | +6.1805E-03 | +0.0166 | +0.7891 | 28 | +6.1516E-03 | +0.0165 | +0.8056 |
| 29 | +5.9962E-03 | +0.0161 | +0.8218 | 30 | +5.7815E-03 | +0.0155 | +0.8373 |
| 31 | +5.6730E-03 | +0.0152 | +0.8525 | 32 | +5.5726E-03 | +0.0150 | +0.8675 |
| 33 | +5.4645E-03 | +0.0147 | +0.8822 | 34 | +5.1233E-03 | +0.0138 | +0.8959 |
| 35 | +5.0900E-03 | +0.0137 | +0.9096 | 36 | +4.7640E-03 | +0.0128 | +0.9224 |
| 37 | +4.5993E-03 | +0.0124 | +0.9348 | 38 | +4.2053E-03 | +0.0113 | +0.9461 |
| 39 | +3.7798E-03 | +0.0102 | +0.9562 | 40 | +3.1066E-03 | +0.0083 | +0.9646 |

The position of each codon by axis

| label | Axis1 | Axis2 | Axis3 | Axis4 |
|-------|----------|----------|----------|----------|
| UUU | 0.48123 | -0.01079 | 0.10926 | 0.02433 |
| UCU | 0.77323 | 0.29412 | -0.69123 | -0.10977 |
| UAU | 0.05331 | -0.07051 | 0.14480 | 0.02826 |
| UGU | 0.45368 | -1.77945 | -0.47149 | 0.10272 |
| UUC | -0.09226 | 0.00151 | -0.02337 | -0.00158 |
| UCC | -0.02368 | 0.09978 | -0.16847 | 0.20654 |
| UAC | -0.08204 | 0.04166 | -0.10471 | -0.01302 |
| UGC | -0.09258 | 0.28300 | 0.12816 | 0.03599 |
| UUA | 1.53524 | 0.16149 | 0.00305 | -0.05308 |
| UCA | 0.67899 | 0.00945 | 0.05967 | 0.22202 |
| UUG | 0.40831 | 0.02021 | 0.01699 | 0.01403 |
| UCG | -0.15940 | -0.03865 | -0.08756 | -0.02933 |
| CUU | 0.70030 | 0.06463 | -0.12679 | -0.04635 |
| CCU | 0.60421 | 0.02099 | -0.10702 | 0.06076 |
| CAU | 0.09564 | -0.07365 | 0.16959 | -0.01520 |
| CGU | 0.16035 | 0.10522 | -0.46925 | -0.40095 |
| CUC | -0.03822 | 0.03527 | -0.07269 | -0.03923 |
| CCC | 0.07266 | 0.02152 | 0.00596 | 0.02724 |
| CAC | -0.07862 | 0.03129 | -0.08562 | 0.00935 |

| | | | | |
|-----|----------|----------|----------|----------|
| CGC | -0.16568 | 0.01218 | -0.05402 | -0.00453 |
| CUA | 0.66982 | 0.01702 | 0.05310 | 0.15363 |
| CCA | 0.73412 | 0.08172 | 0.11531 | 0.02975 |
| CAA | 0.43756 | 0.04762 | 0.02935 | 0.05928 |
| CGA | 0.81536 | 0.09985 | 0.07847 | 0.26317 |
| CUG | -0.13125 | -0.02532 | 0.03859 | 0.01383 |
| CCG | -0.12077 | -0.01629 | 0.00289 | -0.01778 |
| CAG | -0.08397 | -0.01065 | -0.00361 | -0.01095 |
| CGG | 0.01604 | -0.10346 | 0.26600 | 0.04779 |
| AUU | 0.39957 | 0.00507 | -0.08127 | -0.04456 |
| ACU | 0.40119 | 0.06454 | -0.17047 | -0.17640 |
| AAU | 0.13114 | -0.05509 | 0.14787 | 0.01863 |
| AGU | 0.64781 | -0.03312 | 0.56182 | -1.39695 |
| AUC | -0.06983 | -0.00064 | 0.00617 | 0.00365 |
| ACC | -0.16418 | 0.01949 | -0.07119 | -0.00680 |
| AAC | -0.07492 | 0.02291 | -0.06956 | -0.00989 |
| AGC | 0.00451 | -0.02794 | 0.21219 | 0.07487 |
| AUA | 1.53095 | 0.16190 | 0.08435 | -0.05645 |
| ACA | 0.77962 | 0.16868 | 0.00059 | 0.20087 |
| AAA | 0.36430 | 0.00142 | 0.06160 | 0.07953 |
| AGA | 1.37975 | 0.53203 | -0.40076 | 0.83875 |
| ACG | 0.12296 | -0.07023 | 0.16072 | 0.01507 |
| AAG | -0.09153 | 0.00287 | -0.02188 | -0.01760 |
| AGG | 0.64142 | 0.02195 | 0.16245 | 0.12992 |
| GUU | 0.56410 | 0.07826 | -0.26621 | -0.05213 |
| GCU | 0.42558 | 0.07466 | -0.16373 | -0.06520 |
| GAU | 0.15000 | -0.03622 | 0.04696 | -0.03231 |
| GGU | 0.20286 | 0.04540 | -0.18873 | -0.16954 |
| GUC | -0.02631 | 0.02717 | -0.03530 | -0.02152 |
| GCC | -0.09378 | 0.02615 | -0.03077 | 0.01042 |
| GAC | -0.07999 | 0.01859 | -0.02230 | 0.01603 |
| GGC | -0.13612 | 0.00248 | -0.01597 | 0.00579 |
| GUA | 0.59823 | 0.01494 | -0.00125 | 0.09965 |
| GCA | 0.42259 | 0.02827 | 0.00226 | 0.02393 |
| GAA | 0.03156 | 0.02669 | -0.07119 | 0.00533 |
| GGA | 0.68152 | 0.03207 | 0.02036 | 0.08265 |
| GUG | -0.08642 | -0.03641 | 0.07089 | 0.02195 |
| GCG | -0.03522 | -0.03665 | 0.04699 | -0.01064 |
| GAG | -0.02944 | -0.01726 | 0.05799 | -0.00655 |
| GGG | 0.26892 | -0.06395 | 0.25357 | 0.06284 |

Codon utilization of genes sorted by their ordination on the principle axis or factor
 Genes used to calculate fop were 1 to 240 and 4576 to 4815
 these gene numbers REFER ONLY to the sorted list

enc_left 29.541384 enc_right 52.534199
 Chi squared contingency test of genes from both extremes of axis 1

| | | | | | | | |
|-----|------|-------------|-------------|-----|------|-------------|-------------|
| Phe | UUU | 0.08 (132) | 0.72 (796) | Ser | UCU | 0.06 (46) | 0.64 (406) |
| | UUC* | 1.92 (3198) | 1.28 (1420) | | UCC | 1.05 (750) | 1.00 (635) |
| Leu | UUA | 0.00 (1) | 0.22 (207) | | UCA | 0.04 (26) | 0.68 (430) |
| | UUG | 0.19 (235) | 1.03 (987) | | UCG* | 3.59 (2577) | 1.68 (1062) |
| | CUU | 0.09 (111) | 1.08 (1036) | Pro | CCU | 0.07 (69) | 0.63 (465) |

| | | | | | | | |
|-----|------|-------------|-------------|-----|------|-------------|-------------|
| | CUC* | 1.87 (2324) | 1.50 (1440) | | CCC | 0.57 (586) | 0.85 (626) |
| | CUA | 0.02 (23) | 0.40 (379) | | CCA | 0.03 (26) | 0.71 (522) |
| | CUG* | 3.84 (4777) | 1.78 (1707) | | CCG* | 3.34 (3454) | 1.82 (1345) |
| Ile | AUU | 0.16 (280) | 0.85 (812) | Thr | ACU | 0.13 (166) | 0.54 (366) |
| | AUC* | 2.83 (4922) | 1.86 (1781) | | ACC* | 3.07 (3801) | 1.36 (920) |
| | AUA | 0.01 (10) | 0.29 (278) | | ACA | 0.03 (36) | 0.68 (457) |
| Met | AUG | 1.00 (2471) | 1.00 (1078) | | ACG | 0.77 (956) | 1.42 (960) |
| Val | GUU | 0.15 (256) | 0.86 (819) | Ala | GCU | 0.16 (401) | 0.65 (1043) |
| | GUC* | 1.95 (3345) | 1.59 (1518) | | GCC* | 2.02 (5075) | 1.22 (1951) |
| | GUA | 0.03 (54) | 0.36 (340) | | GCA | 0.11 (279) | 0.67 (1062) |
| | GUG* | 1.87 (3216) | 1.19 (1132) | | GCG* | 1.71 (4298) | 1.45 (2315) |
| Tyr | UAU | 0.59 (673) | 1.01 (596) | Cys | UGU | 0.08 (31) | 0.63 (202) |
| | UAC* | 1.41 (1592) | 0.99 (589) | | UGC* | 1.92 (742) | 1.37 (441) |
| TER | UAA | 1.19 (95) | 0.55 (44) | TER | UGA | 1.48 (118) | 1.77 (142) |
| | UAG | 0.34 (27) | 0.68 (54) | Trp | UGG | 1.00 (945) | 1.00 (816) |
| His | CAU | 0.53 (452) | 0.95 (537) | Arg | CGU | 0.58 (479) | 0.86 (653) |
| | CAC* | 1.47 (1245) | 1.05 (596) | | CGC* | 4.31 (3541) | 1.93 (1454) |
| Gln | CAA | 0.09 (125) | 0.72 (672) | | CGA | 0.04 (36) | 1.02 (767) |
| | CAG* | 1.91 (2701) | 1.28 (1200) | | CGG | 1.03 (845) | 1.34 (1015) |
| Asn | AAU | 0.34 (474) | 0.84 (593) | Ser | AGU | 0.03 (23) | 0.57 (362) |
| | AAC* | 1.66 (2332) | 1.16 (811) | | AGC | 1.23 (880) | 1.42 (899) |
| Lys | AAA | 0.12 (316) | 0.68 (616) | Arg | AGA | 0.00 (3) | 0.43 (322) |
| | AAG* | 1.88 (4943) | 1.32 (1199) | | AGG | 0.02 (20) | 0.42 (319) |
| Asp | GAU | 0.41 (1109) | 0.93 (1392) | Gly | GGU | 0.40 (765) | 0.72 (730) |
| | GAC* | 1.59 (4257) | 1.07 (1617) | | GGC* | 3.40 (6574) | 1.81 (1831) |
| Glu | GAA | 0.80 (2205) | 0.93 (1333) | | GGA | 0.05 (89) | 0.80 (814) |
| | GAG* | 1.20 (3292) | 1.07 (1542) | | GGG | 0.16 (302) | 0.67 (682) |

Number of codons in high bias dataset 89132

Number of codons in low bias dataset 55135

Note high bias was assigned to the genes with the lower overall Nc

Codon UUC (Phe) chi value was 975.244
 Codon UAC (Tyr) chi value was 141.735
 Codon UGC (Cys) chi value was 191.765
 Codon UCG (Ser) chi value was 829.639
 Codon CUC (Leu) chi value was 59.218
 Codon CAC (His) chi value was 128.809
 Codon CGC (Arg) chi value was 1500.974
 Codon CUG (Leu) chi value was 1529.191
 Codon CCG (Pro) chi value was 1141.611
 Codon CAG (Gln) chi value was 791.893
 Codon AUC (Ile) chi value was 1372.776
 Codon ACC (Thr) chi value was 1343.144
 Codon AAC (Asn) chi value was 317.674
 Codon AAG (Lys) chi value was 920.198
 Codon GUC (Val) chi value was 77.039
 Codon GCC (Ala) chi value was 628.300
 Codon GAC (Asp) chi value was 602.960

Codon GGC (Gly) chi value was 2071.639
 Codon GUG (Val) chi value was 296.394
 Codon GCG (Ala) chi value was 66.760
 Codon GAG (Glu) chi value was 30.243

These are the PUTATIVE optimal codons

1,1,2,1,3,2,3,3,1,1,2,2,2,3,2,2
 1,1,2,2,3,2,3,3,1,1,1,1,3,3,3,2
 2,2,2,1,3,3,3,2,1,1,2,1,2,2,3,1
 2,2,2,2,3,3,3,3,1,2,2,1,3,3,3,2

These are PUTATIVE CAI adaptiveness values identified by this program

| Cod | AA | Xi | Wi | Cod | AA | Xi | Wi |
|-----|-----|--------|-----------|-----|-----|--------|-----------|
| UUU | Phe | 132.0 | 0.0412758 | UCU | Ser | 46.0 | 0.0178502 |
| UAU | Tyr | 673.0 | 0.4227387 | UGU | Cys | 31.0 | 0.0417790 |
| UUC | Phe | 3198.0 | 1.0000000 | UCC | Ser | 750.0 | 0.2910361 |
| UAC | Tyr | 1592.0 | 1.0000000 | UGC | Cys | 742.0 | 1.0000000 |
| UUA | Leu | 1.0 | 0.0002093 | UCA | Ser | 26.0 | 0.0100893 |
| UAA | TER | 95.0 | 1.0000000 | UGA | TER | 118.0 | 1.0000000 |
| UUG | Leu | 235.0 | 0.0491941 | UCG | Ser | 2577.0 | 1.0000000 |
| UAG | TER | 27.0 | 1.0000000 | UGG | Trp | 945.0 | 1.0000000 |
| CUU | Leu | 111.0 | 0.0232363 | CCU | Pro | 69.0 | 0.0199768 |
| CAU | His | 452.0 | 0.3630522 | CGU | Arg | 479.0 | 0.1352725 |
| CUC | Leu | 2324.0 | 0.4864978 | CCC | Pro | 586.0 | 0.1696584 |
| CAC | His | 1245.0 | 1.0000000 | CGC | Arg | 3541.0 | 1.0000000 |
| CUA | Leu | 23.0 | 0.0048147 | CCA | Pro | 26.0 | 0.0075275 |
| CAA | Gln | 125.0 | 0.0462792 | CGA | Arg | 36.0 | 0.0101666 |
| CUG | Leu | 4777.0 | 1.0000000 | CCG | Pro | 3454.0 | 1.0000000 |
| CAG | Gln | 2701.0 | 1.0000000 | CGG | Arg | 845.0 | 0.2386332 |
| AUU | Ile | 280.0 | 0.0568874 | ACU | Thr | 166.0 | 0.0436727 |
| AAU | Asn | 474.0 | 0.2032590 | AGU | Ser | 23.0 | 0.0089251 |
| AUC | Ile | 4922.0 | 1.0000000 | ACC | Thr | 3801.0 | 1.0000000 |
| AAC | Asn | 2332.0 | 1.0000000 | AGC | Ser | 880.0 | 0.3414823 |
| AUA | Ile | 10.0 | 0.0020317 | ACA | Thr | 36.0 | 0.0094712 |
| AAA | Lys | 316.0 | 0.0639288 | AGA | Arg | 3.0 | 0.0008472 |
| AUG | Met | 2471.0 | 1.0000000 | ACG | Thr | 956.0 | 0.2515128 |
| AAG | Lys | 4943.0 | 1.0000000 | AGG | Arg | 20.0 | 0.0056481 |
| GUU | Val | 256.0 | 0.0765321 | GCU | Ala | 401.0 | 0.0790148 |
| GAU | Asp | 1109.0 | 0.2605121 | GGU | Gly | 765.0 | 0.1163675 |
| GUC | Val | 3345.0 | 1.0000000 | GCC | Ala | 5075.0 | 1.0000000 |
| GAC | Asp | 4257.0 | 1.0000000 | GGC | Gly | 6574.0 | 1.0000000 |
| GUA | Val | 54.0 | 0.0161435 | GCA | Ala | 279.0 | 0.0549754 |
| GAA | Glu | 2205.0 | 0.6698056 | GGA | Gly | 89.0 | 0.0135382 |
| GUG | Val | 3216.0 | 0.9614350 | GCG | Ala | 4298.0 | 0.8468966 |
| GAG | Glu | 3292.0 | 1.0000000 | GGG | Gly | 302.0 | 0.0459385 |

The position of each gene by axis

| label | Axis1 | Axis2 | Axis3 | Axis4 |
|----------------------|----------|----------|----------|---------|
| 1_RPA0001_dnaA;__679 | -0.13232 | -0.30818 | -0.10495 | 0.03678 |
| 2_RPA0002_dnaN;__233 | -0.15280 | 0.01642 | -0.06136 | 0.01119 |
| 3_RPA0003_recF;__366 | -0.02604 | 0.06152 | 0.05651 | 0.10811 |
| 4_RPA0004_gyrB;__505 | -0.14552 | 0.09606 | -0.06558 | 0.03044 |

| | | | | |
|----------------------|----------|----------|----------|----------|
| 5_RPA0005_hpd;__7673 | 0.00859 | -0.12090 | 0.00389 | -0.05847 |
| 6_RPA0006_CDS;__8917 | 0.06679 | 0.06620 | 0.14351 | 0.14559 |
| 7_RPA0007_CDS;__9442 | -0.05971 | 0.05211 | 0.09019 | 0.00007 |
| 8_RPA0008_kaiB;__108 | -0.11956 | -0.49034 | -0.31358 | -0.05562 |
| 9_RPA0009_kaiC;__111 | 0.03764 | -0.03002 | 0.02904 | -0.05996 |
| 10_RPA0010_CDS;__132 | -0.11694 | 0.03626 | 0.08443 | -0.05493 |
| 11_RPA0011_CDS;__142 | -0.17983 | -0.24892 | -0.14987 | 0.03491 |
| 12_RPA0012_rdxS,_fix | 0.58244 | 0.08918 | 0.11628 | 0.30002 |
| 13_RPA0013_rdxI,_fix | -0.03340 | -0.05874 | -0.01246 | 0.06403 |
| 14_RPA0014_rdxH,_fix | -0.00381 | 0.03150 | -0.11693 | -0.20454 |
| 15_RPA0015_fixG,_rdx | -0.16854 | 0.03306 | -0.05418 | 0.03551 |
| 16_RPA0016_ccoP,_fix | -0.11540 | -0.14282 | -0.32701 | -0.00878 |
| 17_RPA0017_ccoQ,_fix | 0.69049 | 0.13518 | 0.30019 | -0.30191 |
| 18_RPA0018_ccoO,_fix | -0.08571 | 0.14261 | -0.29835 | -0.17461 |
| 19_RPA0019_ccoN,_fix | -0.15421 | 0.07742 | -0.09330 | -0.02884 |
| 20_RPA0020_panE;__22 | 0.01695 | 0.06541 | 0.04228 | -0.07452 |
| 21_RPA0021_CDS;__237 | -0.09871 | 0.07299 | -0.03858 | 0.02837 |
| 22_RPA0022_CDS;__246 | -0.13466 | -0.00419 | 0.02133 | -0.14245 |
| 23_RPA0023_gstA;__25 | -0.02697 | 0.09594 | -0.00595 | 0.12807 |
| 24_RPA0024_CDS;__262 | -0.10092 | 0.03034 | 0.11704 | 0.03136 |
| 25_RPA0025_ggt;__27 | -0.03067 | -0.00152 | -0.00322 | 0.08553 |
| 26_RPA0026_CDS;__292 | 0.00421 | 0.08090 | 0.04029 | 0.02177 |
| 27_RPA0027_aroG;__30 | 0.12493 | -0.21846 | 0.12734 | -0.03757 |
| 28_RPA0028_purH;__31 | -0.20736 | 0.02472 | -0.15978 | 0.02146 |
| 29_RPA0029_CDS;__337 | -0.09428 | 0.00523 | -0.05711 | -0.00271 |
| 30_RPA0030_CDS;__358 | 0.12402 | -0.14301 | 0.08851 | -0.05775 |
| 31_RPA0031_CDS;__373 | 0.01979 | 0.15361 | -0.43869 | -0.08258 |
| 32_RPA0032_CDS;__376 | 0.02918 | 0.04495 | 0.15491 | 0.13898 |
| 33_RPA0033_CDS;__382 | -0.01025 | -0.31991 | 0.03722 | -0.12107 |
| 34_RPA0034_CDS;__394 | -0.06765 | 0.05523 | 0.07192 | -0.00767 |
| 35_RPA0035_pheT;__40 | -0.18653 | 0.05831 | -0.00220 | -0.00960 |
| 36_RPA0036_CDS;__434 | 0.11968 | 0.10797 | -0.02052 | 0.02895 |
| 37_RPA0037_pheS;__44 | -0.19708 | -0.05444 | -0.01370 | -0.05197 |
| 38_RPA0038_rplT;__45 | -0.19074 | 0.00040 | -0.15624 | -0.11208 |
| 39_RPA0039_rpmI;__4 | -0.04068 | 0.09789 | -0.37267 | -0.05247 |
| 40_RPA0040_infC;__46 | -0.02186 | -0.41878 | -0.37941 | 0.00470 |
| 41_RPA0041_CDS;__472 | 0.02994 | -0.12148 | -0.15008 | 0.13306 |
| 42_RPA0042_CDS;__482 | -0.03509 | -0.05897 | -0.02582 | 0.01972 |
| 43_RPA0043_CDS;__493 | -0.08219 | 0.05724 | -0.00175 | 0.05186 |
| 44_RPA0044_bacA;__50 | -0.03531 | 0.12667 | -0.12452 | 0.10172 |
| 45_RPA0045_CDS;__511 | -0.04305 | -0.03650 | -0.05906 | -0.17512 |
| 46_RPA0046_CDS;__524 | -0.09527 | 0.06844 | 0.02735 | 0.07576 |
| 47_RPA0047_CDS;__533 | -0.12929 | -0.00656 | -0.05388 | 0.08242 |
| 48_RPA0048_CDS;__540 | 0.06246 | -0.01756 | 0.03870 | -0.04888 |
| 49_RPA0049_CDS;__548 | -0.05571 | 0.00160 | 0.03678 | -0.23887 |
| 50_RPA0050_rpoN;__56 | -0.00392 | 0.09494 | -0.05321 | 0.01212 |
| 51_RPA0051_CDS;__577 | -0.05845 | -0.48531 | -0.04415 | 0.10161 |
| 52_RPA0052_ptsN1;__5 | -0.11397 | -0.01180 | -0.02375 | 0.02937 |
| 53_RPA0053_CDS;__596 | -0.02742 | -0.03227 | 0.08964 | 0.03628 |
| 54_RPA0054_CDS;__600 | 0.44625 | 0.21242 | -0.16619 | -0.23734 |
| 55_RPA0055_ugpC;__6 | 0.09951 | 0.07725 | 0.11858 | -0.01793 |
| 56_RPA0056_ugpE;__6 | -0.17130 | -0.09098 | 0.13594 | 0.05572 |
| 57_RPA0057_ugpA;__6 | -0.06947 | -0.05368 | 0.01859 | -0.07827 |
| 58_RPA0058_ugpB;__6 | -0.21889 | 0.08833 | -0.13252 | 0.00843 |
| 59_RPA0059_CDS;__651 | -0.10234 | 0.09464 | -0.02897 | 0.05880 |
| 60_RPA0060_CDS;__666 | -0.06673 | 0.15779 | -0.31970 | -0.05552 |
| 61_RPA0061_aroA;__67 | -0.06489 | 0.04679 | 0.04168 | 0.02462 |

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| 62_RPA0062_CDS;__685 | 0.07155 | -0.01938 | 0.09816 | 0.11112 |
| 63_RPA0063_cmK;__693 | 0.16433 | -0.44777 | -0.18054 | 0.05522 |
| 64_RPA0064_rpsA;__70 | -0.30486 | 0.11864 | -0.24039 | -0.07603 |
| 65_RPA0065_sppA;__72 | -0.00241 | 0.02861 | -0.09562 | -0.00029 |
| 66_RPA0066_ihfB;__73 | 0.15044 | 0.04143 | -0.05875 | -0.02162 |
| 67_RPA0067_CDS;__737 | -0.05555 | 0.01340 | 0.09621 | 0.12149 |
| 68_RPA0068_trpF;__74 | -0.10699 | 0.10136 | -0.08559 | 0.00384 |
| 69_RPA0069_trpB;__7 | -0.21040 | 0.09764 | -0.09137 | 0.06930 |
| 70_RPA0070_trpA;__76 | -0.26762 | 0.05698 | -0.09680 | -0.05542 |
| 71_RPA0071_accD;__77 | -0.16258 | -0.15628 | -0.25813 | 0.04521 |
| 72_RPA0072_folC;__77 | -0.12557 | 0.00991 | 0.11844 | 0.05123 |
| 73_RPA0073_trxA;__79 | -0.20896 | 0.07408 | -0.06208 | 0.02112 |
| 74_RPA0074_CDS;__799 | -0.02065 | -0.17497 | 0.01050 | 0.01570 |
| 75_RPA0075_CDS;__833 | -0.01270 | 0.02929 | 0.10891 | 0.03928 |
| 76_RPA0076_CDS;__866 | -0.11945 | -0.06706 | 0.12221 | -0.00531 |
| 77_RPA0077_CDS;__874 | -0.02178 | 0.10108 | -0.09384 | -0.06667 |
| 78_RPA0078_CDS;__879 | -0.04048 | -0.05132 | 0.09411 | -0.11973 |
| 79_RPA0079_CDS;__894 | -0.03989 | 0.06190 | 0.06500 | -0.04940 |
| 80_RPA0080_dut;__92 | -0.13652 | -0.00478 | -0.14223 | -0.12110 |
| 81_RPA0081_coaBC;__9 | -0.14514 | -0.03613 | -0.06383 | 0.03405 |
| 82_RPA0082_ubiB;__94 | -0.20508 | -0.05134 | 0.02885 | -0.00318 |
| 83_RPA0083_ubiE;__95 | -0.20825 | 0.04562 | 0.00225 | -0.03615 |
| 84_RPA0084_mutM;__96 | -0.15919 | 0.02976 | 0.12973 | -0.00736 |
| 85_RPA0085_CDS;__975 | 0.04857 | -0.16852 | -0.06457 | -0.06062 |
| 86_RPA0086_moeB;__99 | -0.00288 | 0.03285 | 0.22378 | -0.21446 |
| 87_RPA0087_CDS;__100 | -0.01800 | -0.31070 | -0.01582 | 0.04822 |
| 88_RPA0088_CDS;__101 | 0.15393 | 0.12936 | -0.06424 | 0.09609 |
| 89_RPA0089_CDS;__102 | -0.06569 | 0.05211 | -0.10108 | 0.06866 |
| 90_RPA0090_CDS;__102 | -0.17795 | 0.04860 | 0.03134 | 0.02202 |
| 91_RPA0091_CDS;__103 | -0.11921 | 0.10509 | -0.07976 | -0.02538 |
| 92_RPA0092_CDS;__104 | -0.02634 | 0.05163 | 0.23600 | 0.06569 |
| 93_RPA0093_CDS;__104 | 0.05513 | 0.07527 | 0.07661 | 0.06440 |
| 94_RPA0094_CDS;__105 | -0.07106 | 0.05521 | 0.07702 | -0.02013 |
| 95_RPA0095_CDS;__106 | -0.07990 | 0.04410 | -0.06744 | 0.02138 |
| 96_RPA0096_CDS;__107 | -0.24908 | 0.03988 | 0.01063 | 0.00590 |
| 97_RPA0097_CDS;__110 | 0.03545 | 0.07882 | -0.18059 | 0.01273 |
| 98_RPA0098_oppF;__11 | -0.13687 | 0.06782 | -0.02898 | -0.09114 |
| 99_RPA0099_oppD;__11 | -0.03425 | -0.04265 | 0.09654 | 0.01900 |
| 100_RPA0100_oppC;__1 | -0.04496 | -0.11399 | 0.33100 | -0.12776 |
| 101_RPA0101_oppB;__1 | -0.07962 | 0.04476 | 0.06478 | 0.06323 |
| 102_RPA0102_oppA;__1 | -0.09519 | -0.02750 | -0.01801 | -0.13061 |
| 103_RPA0103_CDS;__11 | 0.07842 | -0.20853 | 0.16759 | 0.01748 |
| 104_RPA0104_CDS;__11 | -0.02432 | -0.06783 | 0.02561 | -0.04628 |
| 105_RPA0105_CDS;__11 | 0.03499 | -0.01928 | 0.06730 | -0.11869 |
| 106_RPA0106_CDS;__12 | -0.23288 | 0.04573 | 0.03512 | 0.01344 |
| 107_RPA0107_CDS;__12 | 0.08983 | -0.01441 | -0.02952 | -0.16919 |
| 108_RPA0108_CDS;__12 | -0.05937 | -0.00991 | -0.00215 | -0.00657 |
| 109_RPA0109_CDS;__12 | 0.02501 | 0.11996 | -0.11045 | -0.09273 |
| 110_RPA0110_CDS;__12 | 0.19239 | 0.11564 | -0.04428 | 0.02974 |
| 111_RPA0111_CDS;__12 | -0.03783 | 0.04209 | 0.09004 | -0.06315 |
| 112_RPA0112_betB;__ | -0.05088 | 0.06711 | 0.07738 | -0.00673 |
| 113_RPA0113_CDS;__13 | -0.10353 | 0.06798 | 0.05063 | -0.01738 |
| 114_RPA0114_CDS;__13 | 0.13654 | 0.02512 | 0.23750 | -0.03174 |
| 115_RPA0118_rmlC;__1 | 0.17138 | 0.16925 | -0.20018 | 0.09134 |
| 116_RPA0119_rmlD;__1 | 0.14426 | -0.46347 | -0.02667 | 0.06069 |
| 117_RPA0120_rmlA;__ | -0.00030 | 0.03515 | 0.16159 | -0.04193 |
| 118_RPA0121_CDS;__13 | 0.41891 | 0.20821 | -0.19667 | 0.05601 |

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| 119_RPA0122_cph1;__ | -0.12035 | 0.02290 | 0.17084 | 0.04925 |
| 120_RPA0123_CDS;__13 | 0.02384 | -0.03803 | 0.12134 | -0.01006 |
| 121_RPA0124_CDS;__14 | -0.14952 | -0.00990 | 0.20148 | -0.11163 |
| 122_RPA0125_CDS;__14 | -0.04922 | 0.04289 | 0.13898 | 0.08368 |
| 123_RPA0126_CDS;__14 | -0.28754 | -0.00910 | -0.04576 | 0.07000 |
| 124_RPA0127_CDS;__14 | -0.16036 | 0.05016 | 0.07636 | 0.06296 |
| 125_RPA0128_CDS;__14 | -0.14319 | 0.05060 | -0.04978 | -0.15072 |
| 126_RPA0129_CDS;__14 | -0.02368 | -0.13289 | 0.04577 | -0.01427 |
| 127_RPA0130_CDS;__14 | -0.21616 | -0.11358 | 0.01124 | 0.00415 |
| 128_RPA0131_CDS;__14 | 0.06612 | 0.05676 | 0.13156 | 0.06319 |
| 129_RPA0132_CDS;__14 | 0.00926 | -0.55350 | 0.15018 | 0.13570 |
| 130_RPA0133_CDS;__14 | -0.02430 | 0.01271 | 0.14018 | 0.01368 |
| 131_RPA0134_hydC;__1 | -0.20651 | -0.01097 | 0.03391 | 0.02364 |
| 132_RPA0135_CDS;__15 | -0.08246 | -0.09625 | 0.03147 | 0.07112 |
| 133_RPA0136_CDS;__15 | -0.04838 | 0.06684 | 0.03379 | 0.01076 |
| 134_RPA0137_cheB2;__ | -0.06569 | 0.09459 | -0.03947 | 0.09651 |
| 135_RPA0138_cheR2;__ | 0.07070 | -0.10950 | -0.01178 | -0.05220 |
| 136_RPA0139_CDS;__15 | -0.21374 | 0.11177 | -0.17392 | -0.05811 |
| 137_RPA0140_cheW3;__ | -0.10525 | -0.44719 | -0.24847 | 0.03905 |
| 138_RPA0141_cheW2;__ | 0.08900 | -0.00175 | 0.22218 | -0.44045 |
| 139_RPA0142_cheA;__1 | -0.12696 | -0.01609 | -0.12561 | 0.02366 |
| 140_RPA0143_cheY2;__ | -0.19858 | 0.09819 | 0.01759 | 0.09564 |
| 141_RPA0144_CDS;__16 | 0.45138 | -0.39433 | -0.17746 | -0.10837 |
| 142_RPA0145_CDS;__16 | 0.12709 | 0.07754 | 0.12327 | 0.07512 |
| 143_RPA0146_CDS;__16 | 0.84146 | -0.30653 | -0.39933 | 0.14143 |
| 144_RPA0147_modE;__1 | 0.02372 | -0.01750 | 0.09534 | -0.07613 |
| 145_RPA0148_CDS;__16 | 0.11986 | 0.04260 | 0.01713 | 0.03023 |
| 146_RPA0149_CDS;__16 | 0.11402 | 0.05648 | 0.17055 | -0.10648 |
| 147_RPA0150_CDS;__16 | 0.04936 | 0.04842 | 0.14045 | 0.07258 |
| 148_RPA0151_CDS;__16 | 0.04106 | -0.22762 | 0.00672 | 0.05881 |
| 149_RPA0152_CDS;__17 | -0.04838 | 0.06862 | -0.04626 | 0.00252 |
| 150_RPA0153_CDS;__17 | 0.01191 | 0.07945 | 0.03988 | 0.02342 |
| 151_RPA0154_CDS;__17 | 0.13030 | 0.06026 | -0.03812 | 0.16872 |
| 152_RPA0155_CDS;__17 | 0.12858 | 0.21306 | -0.23200 | 0.12828 |
| 153_RPA0156_CDS;__17 | 0.27824 | -0.42021 | -0.16922 | 0.01069 |
| 154_RPA0157_CDS;__17 | -0.18891 | 0.06447 | 0.09515 | 0.03460 |
| 155_RPA0158_rplU,_L2 | -0.14080 | 0.06229 | -0.24845 | -0.04830 |
| 156_RPA0159_rpmA,_L2 | 0.10948 | 0.11909 | -0.41764 | -0.10311 |
| 157_RPA0160_CDS;__17 | -0.02696 | 0.09562 | -0.06624 | -0.00740 |
| 158_RPA0161_CDS;__17 | -0.04390 | -0.02544 | 0.22000 | 0.06448 |
| 159_RPA0162_CDS;__18 | -0.18071 | 0.09142 | -0.04433 | 0.05994 |
| 160_RPA0163_proB;__1 | -0.08913 | 0.03583 | 0.09548 | 0.07114 |
| 161_RPA0164_proA;__1 | 0.00590 | 0.04829 | 0.07309 | 0.01551 |
| 162_RPA0165_CDS;__18 | 0.14157 | 0.02257 | 0.21063 | -0.04965 |
| 163_RPA0166_CDS;__18 | 0.01963 | 0.09911 | -0.08846 | -0.05541 |
| 164_RPA0167_CDS;__18 | 0.32622 | -0.04808 | 0.23037 | 0.07612 |
| 165_RPA0168_CDS;__18 | 0.05175 | 0.07273 | 0.10668 | -0.00820 |
| 166_RPA0169_ctpA;__1 | -0.26210 | 0.01208 | -0.14611 | -0.00334 |
| 167_RPA0170_CDS;__18 | 0.04667 | -0.06954 | 0.26212 | -0.00766 |
| 168_RPA0171_invA1;__ | -0.09923 | 0.15950 | -0.08095 | 0.10995 |
| 169_RPA0172_CDS;__19 | -0.11668 | 0.01826 | 0.15775 | 0.11624 |
| 170_RPA0173_CDS;__19 | -0.05970 | -0.02156 | -0.02417 | 0.07905 |
| 171_RPA0174_invA2;__ | -0.15337 | 0.02849 | -0.02619 | 0.09572 |
| 172_RPA0175_atpC;__1 | -0.22034 | 0.09181 | -0.25299 | 0.07042 |
| 173_RPA0176_atpD;__1 | -0.26001 | 0.12296 | -0.32403 | -0.13977 |
| 174_RPA0177_atpG;__1 | -0.22255 | 0.04722 | -0.04593 | -0.01611 |
| 175_RPA0178_atpA;__1 | -0.29758 | 0.12066 | -0.26614 | -0.07092 |

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| 176_RPA0179_atpH;__1 | 0.00474 | 0.02933 | -0.01728 | -0.14735 |
| 177_RPA0180_rlpA;__2 | 0.04162 | 0.05246 | -0.13247 | 0.00768 |
| 178_RPA0181_priA;__2 | -0.02428 | -0.11741 | 0.03638 | 0.02368 |
| 179_RPA0182_xerC;__2 | 0.11622 | -0.08712 | 0.14103 | 0.01197 |
| 180_RPA0183_CDS;__20 | -0.09696 | 0.02581 | -0.08696 | 0.10534 |
| 181_RPA0184_CDS;__20 | -0.19566 | -0.09363 | 0.03621 | -0.02243 |
| 182_RPA0185_dldH;__2 | -0.23707 | 0.10094 | -0.13053 | -0.00914 |
| 183_RPA0186_CDS;__20 | -0.00703 | -0.10803 | 0.00731 | 0.00271 |
| 184_RPA0187_CDS;__20 | -0.01410 | 0.06499 | 0.13148 | 0.15548 |
| 185_RPA0188_sucB;__2 | -0.21322 | 0.09304 | -0.12629 | 0.00166 |
| 186_RPA0189_sucA;__2 | -0.23795 | -0.02050 | -0.13334 | 0.02778 |
| 187_RPA0190_sucD;__2 | -0.25159 | 0.07883 | -0.16275 | -0.04286 |
| 188_RPA0191_sucC;__2 | -0.30182 | 0.11097 | -0.16831 | -0.00065 |
| 189_RPA0192_mdh;__21 | -0.23356 | 0.09302 | -0.14503 | -0.03158 |
| 190_RPA0193_CDS;__21 | -0.07579 | 0.06598 | -0.00456 | 0.03515 |
| 191_RPA0194_CDS;__21 | -0.02429 | -0.04599 | 0.08927 | -0.09375 |
| 192_RPA0195_tesA;__2 | -0.02511 | -0.05419 | 0.10611 | 0.01086 |
| 193_RPA0196_CDS;__21 | -0.14701 | 0.05597 | 0.08630 | 0.05593 |
| 194_RPA0197_CDS;__21 | -0.03928 | 0.05817 | 0.11495 | 0.01433 |
| 195_RPA0198_CDS;__22 | -0.22782 | -0.00079 | -0.15495 | -0.06211 |
| 196_RPA0199_CDS;__22 | -0.10624 | 0.02131 | 0.13269 | 0.15050 |
| 197_RPA0200_CDS;__22 | -0.06104 | 0.06197 | -0.07575 | 0.08514 |
| 198_RPA0201_CDS;__22 | 0.16755 | -0.19049 | -0.05055 | 0.01821 |
| 199_RPA0202_acnA;__2 | -0.31774 | 0.08759 | -0.18934 | -0.07921 |
| 200_RPA0203_cycV,__cc | 0.08686 | -0.53278 | 0.01441 | 0.07059 |
| 201_RPA0204_cycW,__cc | -0.20589 | 0.03042 | 0.10818 | 0.07513 |
| 202_RPA0205_cycZ,__cc | -0.02922 | -0.09471 | 0.21097 | 0.11503 |
| 203_RPA0206_cycY,__cc | -0.12256 | 0.00216 | 0.17264 | 0.01827 |
| 204_RPA0207_CDS;__23 | -0.06616 | 0.12765 | -0.49548 | -0.22736 |
| 205_RPA0208_ispZ;__2 | -0.26773 | -0.08140 | 0.13150 | 0.06733 |
| 206_RPA0209_ftsY;__2 | -0.24549 | -0.03767 | 0.02571 | 0.02681 |
| 207_RPA0210_CDS;__23 | 0.12279 | 0.06819 | 0.09805 | 0.13266 |
| 208_RPA0211_CDS;__23 | -0.29454 | 0.07828 | -0.07496 | 0.04592 |
| 209_RPA0212_CDS;__23 | -0.01356 | 0.07045 | -0.01231 | 0.00527 |
| 210_RPA0213_CDS;__23 | -0.03823 | 0.02245 | -0.14955 | -0.13639 |
| 211_RPA0214_CDS;__24 | 0.78905 | 0.04869 | 0.46292 | -1.55906 |
| 212_RPA0215_CDS;__24 | -0.16045 | -0.03573 | 0.09762 | 0.01662 |
| 213_RPA0216_sdhB;__2 | -0.21871 | 0.05829 | -0.15171 | 0.00441 |
| 214_RPA0217_sdhA;__ | -0.31889 | 0.00994 | -0.08843 | 0.00905 |
| 215_RPA0218_sdhD;__2 | -0.20973 | 0.06428 | -0.23672 | 0.03570 |
| 216_RPA0219_sdhC;__2 | 0.11253 | 0.11416 | -0.02943 | 0.13425 |
| 217_RPA0220_czcD;__2 | -0.08915 | 0.05398 | 0.03591 | -0.02366 |
| 218_RPA0221_matB;__2 | -0.20416 | 0.06044 | 0.00723 | 0.05321 |
| 219_RPA0222_CDS;__24 | 0.03993 | 0.02156 | 0.04991 | 0.19292 |
| 220_RPA0223_CDS;__24 | -0.06198 | -0.00869 | 0.04059 | 0.10438 |
| 221_RPA0224_CDS;__24 | -0.03644 | -0.10422 | 0.00775 | 0.12165 |
| 222_RPA0225_sodC;__2 | 0.00317 | 0.12783 | 0.08736 | 0.02406 |
| 223_RPA0226_CDS;__25 | -0.13811 | 0.00988 | 0.11221 | 0.06617 |
| 224_RPA0227_leuB;__2 | -0.30025 | 0.06045 | -0.03066 | 0.02945 |
| 225_RPA0228_CDS;__25 | -0.10066 | 0.14315 | -0.32850 | 0.10218 |
| 226_RPA0229_CDS;__25 | 0.10527 | -0.15678 | 0.07882 | 0.06893 |
| 227_RPA0230_asdB;__2 | -0.28763 | 0.05507 | -0.04260 | -0.00906 |
| 228_RPA0231_CDS;__25 | -0.09414 | -0.00382 | 0.03844 | 0.14000 |
| 229_RPA0232_CDS;__25 | -0.14427 | 0.09707 | -0.05458 | 0.02431 |
| 230_RPA0233_CDS;__25 | -0.20043 | 0.04572 | 0.03623 | 0.04781 |
| 231_RPA0234_CDS;__25 | -0.08188 | 0.08980 | -0.05484 | -0.00363 |
| 232_RPA0235_leuD;__2 | -0.28535 | -0.07287 | -0.12650 | -0.04815 |

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| 233_RPA0236_CDS;__26 | -0.17866 | 0.03310 | 0.16054 | 0.13367 |
| 234_RPA0237_CDS;__26 | -0.08171 | -0.06748 | -0.07776 | -0.09472 |
| 235_RPA0238_CDS;__26 | -0.01781 | -0.04841 | 0.13322 | 0.02414 |
| 236_RPA0239_CDS;__26 | 0.21234 | 0.06382 | 0.07039 | 0.12798 |
| 237_RPA0240_leuC;__2 | -0.29708 | 0.08438 | -0.12526 | 0.00365 |
| 238_RPA0241_rplS;_L1 | -0.29062 | 0.06392 | -0.15183 | -0.08729 |
| 239_RPA0242_trmD;__2 | 0.12175 | -0.20337 | -0.00475 | 0.07362 |
| 240_RPA0243_rimM;__2 | -0.14519 | 0.02907 | 0.16192 | 0.04396 |
| 241_RPA0244_rpsP;_S1 | -0.29405 | 0.05653 | -0.31972 | -0.10105 |
| 242_RPA0245_ffh/ftsY | -0.21437 | -0.01516 | -0.04147 | -0.08056 |
| 243_RPA0246_CDS;__27 | 0.46306 | -0.43671 | -0.05848 | 0.12632 |
| 244_RPA0247_romA;__2 | -0.12514 | 0.02869 | 0.15554 | 0.09862 |
| 245_RPA0248_bp26;__2 | -0.06934 | -0.50362 | -0.18690 | 0.02136 |
| 246_RPA0249_CDS;__27 | -0.09621 | 0.13462 | -0.22545 | -0.06217 |
| 247_RPA0250_dapF;__2 | -0.13892 | 0.08494 | 0.07276 | 0.15021 |
| 248_RPA0251_CDS;__27 | -0.01526 | 0.06087 | 0.07685 | 0.03295 |
| 249_RPA0252_CDS;__27 | -0.08312 | 0.07257 | 0.05080 | 0.07299 |
| 250_RPA0253_CDS;__27 | -0.19875 | 0.04461 | 0.06013 | 0.14192 |
| 251_RPA0254_gpdA;__2 | -0.14301 | 0.00268 | 0.07536 | -0.00865 |
| 252_RPA0255_gcp;__27 | 0.11344 | -0.00149 | -0.04737 | -0.13229 |
| 253_RPA0256_CDS;__28 | -0.11252 | 0.03656 | 0.13058 | 0.09933 |
| 254_RPA0257_CDS;__28 | 0.10901 | -0.01113 | 0.11567 | -0.05187 |
| 255_RPA0258_CDS;__28 | -0.11146 | -0.24375 | 0.04180 | -0.10359 |
| 256_RPA0259_CDS;__28 | -0.01702 | -0.02635 | 0.03926 | 0.00669 |
| 257_RPA0260_CDS;__28 | 0.26337 | -0.00120 | -0.00416 | 0.01908 |
| 258_RPA0261_CDS;__28 | 0.05479 | -0.09713 | -0.00362 | -0.00475 |
| 259_RPA0262_CDS;__28 | -0.05334 | -0.20215 | 0.07959 | 0.05492 |
| 260_RPA0263_CDS;__28 | -0.00904 | 0.05666 | -0.00502 | -0.26434 |
| 261_RPA0264_CDS;__29 | -0.01689 | -0.00886 | 0.13892 | 0.03887 |
| 262_RPA0265_algJ;__2 | 0.20477 | -0.21354 | 0.10222 | 0.01136 |
| 263_RPA0266_CDS;__29 | 0.00002 | -0.06155 | 0.10158 | -0.15553 |
| 264_RPA0267_trx;__29 | -0.15141 | 0.02123 | 0.05820 | -0.00981 |
| 265_RPA0268_CDS;__29 | 0.02707 | 0.04440 | 0.10009 | 0.08364 |
| 266_RPA0269_CDS;__29 | 0.03534 | 0.13219 | 0.00314 | 0.11896 |
| 267_RPA0270_ubiH;__2 | -0.00398 | -0.09208 | 0.00602 | 0.13454 |
| 268_RPA0271_tesB;__2 | -0.31352 | 0.04205 | 0.01290 | 0.01640 |
| 269_RPA0272_glnK1;__ | -0.14094 | 0.06962 | -0.18049 | 0.16608 |
| 270_RPA0273_amtB1;__ | -0.12778 | -0.13589 | -0.02783 | 0.02642 |
| 271_RPA0274_glnK2;__ | -0.00422 | 0.07654 | -0.04446 | -0.01286 |
| 272_RPA0275_amtB2;__ | -0.23937 | 0.04500 | -0.25594 | -0.05848 |
| 273_RPA0276_CDS;__30 | 0.15687 | 0.09222 | -0.06499 | -0.02503 |
| 274_RPA0277_CDS;__30 | 0.13541 | 0.12757 | -0.11864 | 0.07709 |
| 275_RPA0278_CDS;__30 | 0.01963 | 0.04804 | 0.12177 | 0.07998 |
| 276_RPA0279_CDS;__30 | -0.15661 | 0.07054 | 0.01004 | -0.01762 |
| 277_RPA0280_CDS;__30 | -0.06839 | 0.04677 | 0.11442 | 0.06735 |
| 278_RPA0281_xth;__31 | -0.00410 | -0.05434 | 0.00250 | 0.02211 |
| 279_RPA0282_CDS;__31 | -0.14682 | -0.09125 | 0.18789 | 0.09355 |
| 280_RPA0283_CDS;__31 | -0.12770 | 0.00912 | -0.07846 | 0.03965 |
| 281_RPA0284_CDS;__31 | 0.31920 | -0.20157 | 0.11094 | 0.20334 |
| 282_RPA0285_CDS;__31 | 0.01745 | 0.04664 | 0.11992 | -0.19403 |
| 283_RPA0286_CDS;__31 | -0.01161 | -0.15380 | 0.01546 | 0.01188 |
| 284_RPA0287_leuS;__3 | -0.13059 | -0.09639 | -0.04412 | 0.01232 |
| 285_RPA0288_CDS;__31 | -0.20720 | 0.05989 | -0.02194 | -0.01895 |
| 286_RPA0289_CDS;__31 | 0.13990 | 0.07602 | 0.09017 | -0.03702 |
| 287_RPA0290_CDS;__32 | 0.55249 | -0.35268 | -0.51733 | -0.11069 |
| 288_RPA0291_parB;__3 | -0.03490 | -0.00272 | -0.01707 | -0.09961 |
| 289_RPA0292_parA;__3 | -0.04513 | -0.12384 | -0.07013 | -0.03248 |

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| 290_RPA0293_gidB;__3 | 0.44045 | 0.18291 | -0.01594 | 0.03122 |
| 291_RPA0294_gidA;__3 | 0.21534 | 0.08020 | 0.03343 | -0.02426 |
| 292_RPA0295_trmE,_mn | 0.26329 | -0.21659 | 0.06258 | -0.06338 |
| 293_RPA0296_rho;__32 | -0.17413 | 0.10647 | -0.19288 | -0.05242 |
| 294_RPA0297_CDS;__32 | 0.07964 | 0.09643 | -0.02765 | 0.07016 |
| 295_RPA0298_CDS;__32 | 0.04377 | 0.04589 | 0.08717 | -0.10389 |
| 296_RPA0299_maf;__32 | 0.10306 | -0.02745 | 0.09018 | -0.22312 |
| 297_RPA0300_coaE;__3 | -0.07538 | -0.02181 | -0.08260 | 0.03099 |
| 298_RPA0301_dnaQ,_mu | -0.14585 | 0.03176 | 0.04203 | -0.01329 |
| 299_RPA0302_secB;__3 | -0.14872 | -0.00958 | 0.22259 | -0.11396 |
| 300_RPA0303_CDS;__33 | 0.01907 | -0.09099 | -0.06129 | -0.01160 |
| 301_RPA0304_CDS;__33 | 0.22778 | -0.04337 | 0.01464 | -0.02173 |
| 302_RPA0305_CDS;__33 | 0.00729 | -0.04464 | 0.13952 | -0.23588 |
| 303_RPA0306_hslU;__3 | -0.17405 | 0.07231 | -0.00591 | 0.08181 |
| 304_RPA0307_CDS;__33 | 0.00987 | 0.08343 | 0.02171 | -0.05004 |
| 305_RPA0308_hslV;__3 | -0.12204 | 0.09000 | -0.09055 | 0.02186 |
| 306_RPA0309_hisB;__3 | -0.16897 | 0.03157 | 0.06185 | 0.03215 |
| 307_RPA0310_CDS;__33 | -0.08147 | -0.03354 | 0.04218 | 0.03215 |
| 308_RPA0311_hisH;__3 | -0.11797 | 0.06635 | 0.03915 | -0.13186 |
| 309_RPA0312_hisA;__3 | -0.09951 | 0.12045 | -0.10983 | 0.02802 |
| 310_RPA0313_hisF;__3 | -0.19035 | 0.06636 | -0.06126 | 0.01135 |
| 311_RPA0314_hisE;__3 | -0.22189 | 0.12150 | -0.16523 | 0.01414 |
| 312_RPA0315_coaA;__3 | -0.18106 | -0.01562 | -0.05818 | 0.01993 |
| 313_RPA0316_CDS;__34 | -0.13909 | -0.13629 | -0.02895 | 0.00294 |
| 314_RPA0317_CDS;__34 | 0.20969 | -0.09996 | 0.08916 | -0.14939 |
| 315_RPA0318_CDS;__34 | 0.01287 | -0.05081 | 0.12544 | 0.08917 |
| 316_RPA0319_CDS;__34 | -0.13244 | 0.01134 | 0.21077 | -0.13628 |
| 317_RPA0320_CDS;__34 | -0.06270 | 0.04654 | -0.00742 | 0.00603 |
| 318_RPA0321_CDS;__34 | 0.08495 | 0.06578 | 0.11563 | -0.03445 |
| 319_RPA0322_gshB;__3 | -0.07713 | 0.04702 | 0.08805 | -0.04666 |
| 320_RPA0323_CDS;__35 | 0.02142 | 0.05203 | 0.18507 | 0.12072 |
| 321_RPA0324_CDS;__35 | 0.21239 | 0.08487 | 0.06387 | 0.10499 |
| 322_RPA0325_CDS;__35 | -0.01018 | 0.08125 | 0.05042 | -0.04946 |
| 323_RPA0326_CDS;__35 | 0.37384 | 0.16904 | 0.12152 | 0.08451 |
| 324_RPA0327_hemN;__3 | -0.04596 | 0.05631 | 0.07999 | 0.07716 |
| 325_RPA0328_CDS;__35 | 0.01811 | 0.08416 | 0.07789 | -0.07916 |
| 326_RPA0329_rph;__35 | -0.20102 | 0.07992 | -0.07109 | 0.04755 |
| 327_RPA0330_hrcA;__3 | -0.11044 | -0.03917 | -0.00781 | -0.01379 |
| 328_RPA0331_CDS;__35 | -0.23202 | -0.00673 | -0.14658 | -0.06800 |
| 329_RPA0332_CDS;__35 | 0.00015 | 0.00016 | 0.02822 | 0.03298 |
| 330_RPA0333_dnaK;__3 | -0.25002 | 0.10872 | -0.18711 | -0.06468 |
| 331_RPA0334_dnaJ;__3 | -0.10322 | 0.07333 | -0.15110 | 0.01760 |
| 332_RPA0335_CDS;__36 | 0.07938 | 0.13968 | -0.24106 | -0.01919 |
| 333_RPA0336_CDS;__36 | -0.03612 | 0.05969 | 0.07983 | 0.14072 |
| 334_RPA0337_pyrF;__3 | 0.13244 | -0.42513 | -0.21467 | 0.00328 |
| 335_RPA0338_CDS;__36 | -0.00327 | 0.10409 | -0.14187 | -0.01635 |
| 336_RPA0339_dapB;__3 | -0.19703 | -0.00619 | -0.07589 | 0.01629 |
| 337_RPA0340_pgm;__3 | -0.07562 | 0.06795 | 0.08129 | 0.07783 |
| 338_RPA0341_ogt;__36 | 0.00875 | 0.10110 | -0.00138 | 0.09205 |
| 339_RPA0342_CDS;__36 | 0.13183 | 0.04393 | 0.25596 | -0.14257 |
| 340_RPA0343_nth;__37 | 0.05345 | 0.08041 | 0.00004 | -0.12773 |
| 341_RPA0344_CDS;__37 | -0.02599 | -0.00742 | 0.04158 | -0.12576 |
| 342_RPA0345_CDS;__37 | 0.24015 | -0.12774 | 0.09980 | 0.02847 |
| 343_RPA0346_CDS;__37 | -0.12232 | -0.04162 | -0.00712 | 0.00875 |
| 344_RPA0347_aceK;__ | -0.09744 | 0.04737 | 0.09091 | 0.10117 |
| 345_RPA0348_CDS;__37 | 0.08002 | -0.49159 | -0.02231 | 0.05010 |
| 346_RPA0349_dcm;__37 | 0.46410 | 0.07633 | 0.14155 | -0.07952 |

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| 347_RPA0350_vsr;__3 | 0.65536 | 0.05530 | -0.24494 | 0.08203 |
| 348_RPA0351_CDS;__38 | 0.42775 | 0.17756 | -0.01491 | 0.01215 |
| 349_RPA0352_lepA;__3 | -0.25370 | 0.05726 | 0.01107 | 0.04200 |
| 350_RPA0353_CDS;__38 | -0.07388 | -0.24863 | 0.02635 | 0.09052 |
| 351_RPA0354_CDS;__38 | 0.03510 | 0.02226 | -0.10857 | 0.04143 |
| 352_RPA0355_CDS;__38 | 0.17913 | 0.07017 | 0.19550 | -0.28065 |
| 353_RPA0356_CDS;__38 | 0.22535 | 0.07006 | -0.17844 | 0.07913 |
| 354_RPA0357_exoS;_ch | -0.17276 | 0.05478 | 0.06104 | 0.07688 |
| 355_RPA0358_chvI;__3 | -0.23407 | 0.03186 | 0.02300 | -0.00113 |
| 356_RPA0359_CDS;__38 | 0.27697 | 0.08372 | 0.11721 | -0.20960 |
| 357_RPA0360_pckA;__3 | -0.31759 | 0.09223 | -0.16651 | -0.03744 |
| 358_RPA0361_CDS;__39 | -0.29301 | 0.06844 | -0.01230 | 0.03577 |
| 359_RPA0362_penP;_pe | -0.10048 | 0.04949 | 0.08124 | -0.08694 |
| 360_RPA0363_CDS;__39 | -0.00647 | 0.13453 | -0.03903 | 0.01194 |
| 361_RPA0364_CDS;__39 | -0.14153 | 0.02956 | 0.07402 | 0.09057 |
| 362_RPA0365_CDS;__39 | -0.11708 | 0.05758 | 0.04981 | -0.08006 |
| 363_RPA0366_CDS;__39 | -0.17563 | 0.02512 | -0.10953 | 0.02286 |
| 364_RPA0367_rpoH;__3 | -0.14074 | 0.02782 | -0.15366 | -0.01531 |
| 365_RPA0368_rluD;__3 | -0.03297 | -0.07342 | -0.00728 | 0.06835 |
| 366_RPA0369_CDS;__40 | 1.02154 | 0.09966 | -0.10659 | 0.13561 |
| 367_RPA0370_CDS;__40 | 0.09456 | 0.02663 | -0.01132 | 0.07409 |
| 368_RPA0371_metB;__4 | -0.03106 | 0.04759 | 0.16322 | 0.03432 |
| 369_RPA0372_CDS;__40 | -0.01666 | -0.03781 | 0.37437 | 0.12514 |
| 370_RPA0373_trxC;__4 | 0.00545 | 0.11740 | 0.06443 | 0.22749 |
| 371_RPA0374_CDS;__40 | 0.11339 | 0.10412 | -0.00846 | 0.02052 |
| 372_RPA0375_chaB;__ | 0.10203 | 0.04808 | -0.02501 | 0.13368 |
| 373_RPA0376_pimT;__4 | -0.00625 | 0.01567 | -0.06377 | -0.02949 |
| 374_RPA0377_CDS;__41 | -0.17775 | 0.03856 | 0.01719 | 0.00647 |
| 375_RPA0378_melA;__4 | -0.06867 | -0.14794 | -0.02582 | -0.01920 |
| 376_RPA0379_pfkB;__ | -0.17577 | 0.05294 | -0.01386 | -0.05074 |
| 377_RPA0380_CDS;__41 | -0.00004 | 0.05299 | 0.09993 | -0.10170 |
| 378_RPA0381_glgC;__4 | -0.05577 | -0.04764 | -0.01025 | -0.18246 |
| 379_RPA0382_glgA;__4 | -0.05750 | 0.07756 | 0.01650 | 0.04409 |
| 380_RPA0383_CDS;__41 | -0.10250 | 0.09298 | -0.00661 | 0.12598 |
| 381_RPA0384_CDS;__42 | 0.09940 | 0.10995 | 0.04826 | 0.12236 |
| 382_RPA0385_radC;__4 | 0.03062 | 0.04050 | 0.13732 | 0.02010 |
| 383_RPA0386_CDS;__42 | 0.02260 | 0.07626 | 0.10048 | -0.11579 |
| 384_RPA0387_map;__42 | -0.19533 | 0.08944 | -0.05643 | 0.01617 |
| 385_RPA0388_CDS;__42 | -0.10578 | 0.01222 | 0.13137 | 0.05273 |
| 386_RPA0389_mepA;__4 | -0.00934 | 0.03576 | 0.10777 | 0.07687 |
| 387_RPA0390_CDS;__42 | -0.10785 | 0.04551 | 0.07936 | -0.01118 |
| 388_RPA0391_CDS;__42 | -0.10266 | -0.02169 | 0.05125 | 0.05449 |
| 389_RPA0392_argG;__ | -0.26880 | 0.07661 | -0.02378 | 0.00762 |
| 390_RPA0393_CDS;__43 | -0.20227 | 0.01799 | 0.10853 | 0.05349 |
| 391_RPA0394_CDS;__43 | -0.10814 | 0.04712 | 0.10534 | 0.12632 |
| 392_RPA0395_CDS;__43 | 0.08063 | 0.12554 | 0.00137 | 0.08926 |
| 393_RPA0396_CDS;__43 | -0.14456 | 0.01470 | -0.06204 | 0.05477 |
| 394_RPA0397_CDS;__43 | -0.04605 | -0.22086 | -0.05446 | 0.08256 |
| 395_RPA0398_CDS;__43 | 0.02518 | 0.10564 | -0.00998 | 0.09890 |
| 396_RPA0399_CDS;__43 | 0.14982 | 0.10508 | 0.00782 | -0.02185 |
| 397_RPA0400_CDS;__43 | -0.12735 | 0.07115 | -0.05368 | -0.00614 |
| 398_RPA0401_CDS;__44 | -0.06977 | 0.04018 | 0.11807 | 0.05536 |
| 399_RPA0402_CDS;__44 | 0.18656 | -0.06237 | 0.22215 | 0.06916 |
| 400_RPA0403_CDS;__44 | 0.17236 | 0.04572 | 0.26345 | 0.09657 |
| 401_RPA0404_phhB;__4 | 0.17035 | 0.06837 | 0.14409 | 0.09864 |
| 402_RPA0405_CDS;__44 | -0.01240 | 0.07078 | 0.05028 | 0.06132 |
| 403_RPA0406_CDS;__44 | 0.06798 | -0.49504 | -0.01129 | 0.10284 |

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| 404_RPA0407_CDS;__44 | -0.10890 | 0.01163 | -0.06955 | -0.04288 |
| 405_RPA0408_bipA;__4 | -0.25243 | -0.16920 | -0.23019 | -0.01032 |
| 406_RPA0409_CDS;__45 | 0.03432 | -0.27197 | -0.03546 | 0.06683 |
| 407_RPA0410_CDS;__45 | -0.06064 | 0.04450 | 0.05529 | 0.01010 |
| 408_RPA0411_ppa;__45 | -0.20522 | 0.04577 | -0.00291 | -0.03488 |
| 409_RPA0412_CPS1,_CP | -0.09834 | -0.03777 | 0.12593 | 0.09218 |
| 410_RPA0413_CDS;__45 | -0.23145 | 0.04546 | 0.03806 | 0.08853 |
| 411_RPA0414_CDS;__45 | 0.14027 | 0.02187 | 0.05406 | 0.15943 |
| 412_RPA0415_CDS;__45 | 0.36196 | -0.12484 | -0.09369 | 0.03372 |
| 413_RPA0416_CDS;__45 | -0.09073 | -0.18985 | -0.08597 | 0.02752 |
| 414_RPA0417_CDS;__45 | -0.01679 | -0.48780 | -0.00767 | 0.17579 |
| 415_RPA0418_CDS;__46 | -0.02465 | 0.05641 | -0.00108 | -0.00022 |
| 416_RPA0419_CDS;__46 | 0.03426 | 0.05629 | 0.09059 | -0.00058 |
| 417_RPA0420_CDS;__46 | 0.29114 | 0.02210 | 0.07730 | -0.05165 |
| 418_RPA0421_CDS;__46 | -0.04677 | 0.03250 | 0.14675 | 0.08449 |
| 419_RPA0422_CDS;__46 | -0.12076 | -0.23200 | -0.08700 | 0.04094 |
| 420_RPA0423_CDS;__46 | 0.16500 | 0.07840 | 0.14292 | 0.05555 |
| 421_RPA0424_irr;__46 | -0.01440 | 0.04815 | 0.03846 | -0.24945 |
| 422_RPA0425_fabA;__4 | -0.11202 | 0.12278 | -0.12469 | 0.01173 |
| 423_RPA0426_fabB;__4 | -0.20649 | 0.11042 | -0.23216 | -0.08399 |
| 424_RPA0427_CDS;__46 | -0.26754 | 0.08657 | -0.08985 | 0.03545 |
| 425_RPA0428_CDS;__46 | 0.08252 | -0.20023 | -0.03964 | -0.06599 |
| 426_RPA0429_katG;__4 | -0.27836 | 0.08563 | -0.10984 | -0.01394 |
| 427_RPA0430_oxyR;__ | -0.00051 | 0.02406 | 0.18502 | -0.06686 |
| 428_RPA0431_CDS;__47 | -0.05926 | 0.02609 | -0.01370 | 0.02806 |
| 429_RPA0432_pnp;__47 | -0.28116 | 0.12628 | -0.25873 | -0.07976 |
| 430_RPA0433_rpsO;__4 | -0.04803 | 0.07975 | -0.38470 | -0.17765 |
| 431_RPA0434_truB;__4 | -0.02955 | -0.02955 | -0.00063 | -0.02556 |
| 432_RPA0435_rbfA;__4 | -0.23251 | 0.03997 | -0.18193 | -0.02253 |
| 433_RPA0436_infB;__4 | -0.23490 | 0.11381 | -0.20759 | -0.05931 |
| 434_RPA0437_CDS;__48 | 0.32200 | -0.01568 | -0.04674 | 0.07968 |
| 435_RPA0438_nusA;__4 | -0.25211 | 0.07703 | -0.10086 | -0.00509 |
| 436_RPA0439_CDS;__48 | -0.08862 | -0.08573 | -0.13259 | 0.02065 |
| 437_RPA0440_CDS;__48 | 0.06905 | 0.04888 | 0.09654 | -0.05529 |
| 438_RPA0441_CDS;__48 | 0.09950 | 0.05360 | 0.11064 | -0.16710 |
| 439_RPA0442_CDS;__48 | 0.08709 | 0.08394 | -0.01328 | -0.21109 |
| 440_RPA0443_CDS;__48 | 0.25634 | 0.07879 | -0.15798 | -0.26819 |
| 441_RPA0444_lnt;__49 | 0.20858 | -0.47682 | -0.08750 | 0.03462 |
| 442_RPA0445_CDS;__49 | -0.05778 | 0.01957 | -0.04416 | -0.08271 |
| 443_RPA0446_CDS;__49 | 0.00303 | 0.05748 | 0.10555 | -0.45302 |
| 444_RPA0447_CDS;__49 | -0.11770 | 0.09731 | -0.05987 | 0.08893 |
| 445_RPA0448_miaB;__4 | 0.04108 | -0.00139 | -0.01666 | 0.03295 |
| 446_RPA0449_CDS;__49 | 0.35086 | -0.08827 | -0.04775 | -0.21683 |
| 447_RPA0450_fur;__4 | -0.15243 | -0.06145 | -0.22807 | -0.01064 |
| 448_RPA0451_rimI;__4 | 0.38173 | 0.05041 | -0.08799 | 0.02109 |
| 449_RPA0452_CDS;__49 | 0.03251 | 0.06304 | -0.03179 | -0.02030 |
| 450_RPA0453_CDS;__49 | -0.15868 | -0.22862 | -0.02415 | 0.04554 |
| 451_RPA0454_CDS;__49 | -0.05255 | 0.06962 | 0.07693 | 0.04355 |
| 452_RPA0455_trpS;__5 | -0.18605 | 0.04455 | 0.01058 | -0.00364 |
| 453_RPA0456_CDS;__50 | 0.03663 | -0.03437 | 0.07260 | 0.07582 |
| 454_RPA0457_CDS;__50 | -0.16358 | 0.07134 | -0.06724 | 0.03724 |
| 455_RPA0458_CDS;__50 | -0.01912 | 0.08559 | 0.05192 | 0.03032 |
| 456_RPA0459_CDS;__50 | 0.10936 | 0.06661 | 0.14591 | 0.14317 |
| 457_RPA0460_CDS;__50 | -0.11368 | -0.08342 | 0.03758 | 0.03722 |
| 458_RPA0461_gabD;__ | -0.09900 | 0.06693 | 0.00011 | -0.04306 |
| 459_RPA0462_CDS;__50 | -0.10630 | 0.07607 | 0.08661 | 0.08846 |
| 460_RPA0463_CDS;__51 | 0.04722 | -0.46859 | -0.02582 | 0.06778 |

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| 461_RPA0464_CDS;__51 | -0.04125 | -0.02074 | 0.06865 | 0.06553 |
| 462_RPA0465_CDS;__51 | -0.02193 | -0.04822 | 0.15427 | 0.02619 |
| 463_RPA0466_CDS;__51 | -0.09843 | 0.03886 | 0.10701 | 0.06771 |
| 464_RPA0467_CDS;__51 | -0.01666 | -0.44973 | -0.21198 | 0.04821 |
| 465_RPA0468_CDS;__51 | 0.00913 | 0.05427 | 0.02024 | 0.05629 |
| 466_RPA0469_Atsc;__5 | -0.01295 | 0.07022 | 0.04500 | 0.04713 |
| 467_RPA0470_CDS;__51 | -0.08223 | 0.03362 | -0.10579 | 0.04391 |
| 468_RPA0471_CDS;__51 | -0.05300 | 0.00840 | 0.18078 | -0.00282 |
| 469_RPA0472_CDS;__52 | 0.01025 | 0.09107 | 0.02011 | 0.00986 |
| 470_RPA0473_PA3602;__ | -0.03767 | -0.02613 | -0.02984 | -0.04249 |
| 471_RPA0474_CDS;__52 | -0.00282 | -0.12295 | 0.15129 | 0.01377 |
| 472_RPA0475_CDS;__52 | -0.17937 | 0.03749 | 0.04891 | -0.11988 |
| 473_RPA0476_CDS;__52 | 0.06810 | -0.14625 | -0.08410 | 0.02418 |
| 474_RPA0477_CDS;__52 | -0.04359 | -0.00075 | 0.00215 | 0.05699 |
| 475_RPA0478_CDS;__52 | 0.39988 | -0.03840 | 0.09811 | 0.13394 |
| 476_RPA0479_fabG;__ | -0.09505 | 0.07739 | -0.02068 | 0.04677 |
| 477_RPA0480_CDS;__53 | 0.03182 | 0.09885 | 0.03015 | -0.12956 |
| 478_RPA0481_CDS;__53 | -0.21216 | 0.08014 | -0.08013 | -0.07099 |
| 479_RPA0482_CDS;__53 | -0.16319 | 0.06586 | -0.00181 | 0.01774 |
| 480_RPA0483_CDS;__53 | -0.03416 | -0.02849 | 0.03779 | 0.02027 |
| 481_RPA0484_paaG2;__ | -0.10764 | -0.04691 | -0.09060 | 0.01707 |
| 482_RPA0485_CDS;__53 | -0.14860 | -0.09780 | -0.09677 | 0.04628 |
| 483_RPA0486_CDS;__53 | 0.38750 | -0.17533 | -0.01709 | 0.09254 |
| 484_RPA0487_CDS;__53 | -0.14967 | 0.05277 | 0.05698 | -0.08261 |
| 485_RPA0488_CDS;__53 | -0.18382 | 0.00940 | -0.11949 | -0.01100 |
| 486_RPA0489_CDS;__54 | 0.05542 | 0.09833 | -0.36436 | -0.16759 |
| 487_RPA0490_CDS;__54 | 0.58845 | 0.04941 | -0.03005 | -0.00601 |
| 488_RPA0491_CDS;__54 | 0.02470 | -0.08860 | -0.07270 | -0.00990 |
| 489_RPA0492_CDS;__54 | 0.07454 | 0.10939 | 0.03900 | 0.16234 |
| 490_RPA0493_rpmB,__L2 | -0.09118 | 0.08249 | -0.17102 | -0.20774 |
| 491_RPA0494_CDS;__54 | -0.04867 | 0.05314 | 0.08546 | 0.04253 |
| 492_RPA0495_CDS;__55 | 0.01453 | 0.00323 | -0.01872 | -0.04495 |
| 493_RPA0496_cobT;__5 | -0.15619 | -0.05352 | -0.01466 | 0.02046 |
| 494_RPA0497_CDS;__55 | 0.56109 | 0.16450 | 0.01349 | 0.29085 |
| 495_RPA0498_cobS;__5 | -0.14621 | -0.11285 | -0.04451 | 0.02955 |
| 496_RPA0499_CDS;__55 | 0.08947 | -0.06841 | 0.16369 | -0.29340 |
| 497_RPA0500_CDS;__55 | -0.09542 | -0.10845 | 0.08138 | 0.10914 |
| 498_RPA0501_CDS;__55 | -0.02192 | -0.02824 | 0.03825 | -0.00007 |
| 499_RPA0502_CDS;__55 | -0.19051 | 0.07392 | -0.06735 | 0.01872 |
| 500_RPA0503_aroB;__5 | -0.23003 | 0.04565 | 0.03818 | 0.08317 |
| 501_RPA0504_aroK;__5 | 0.03928 | 0.11523 | -0.08639 | 0.08118 |
| 502_RPA0505_CDS;__55 | 0.05259 | -0.08023 | 0.28956 | 0.08923 |
| 503_RPA0506_CDS;__56 | 0.10808 | -0.22466 | 0.08597 | 0.07305 |
| 504_RPA0507_CDS;__56 | 0.06131 | 0.09912 | 0.02138 | 0.10841 |
| 505_RPA0508_accA;__5 | -0.12678 | -0.11810 | -0.04700 | 0.08682 |
| 506_RPA0509_CDS;__56 | -0.08199 | -0.09186 | -0.08879 | -0.05073 |
| 507_RPA0510_secA;__5 | -0.23815 | 0.11492 | -0.16985 | -0.00233 |
| 508_RPA0511_CDS;__56 | 0.01782 | -0.34470 | -0.36566 | 0.10908 |
| 509_RPA0512_mutS;__5 | -0.16297 | -0.04675 | -0.03610 | 0.02699 |
| 510_RPA0513_pcaF;__ | -0.22372 | 0.04080 | 0.01187 | 0.00771 |
| 511_RPA0514_FarB;__5 | -0.22365 | 0.05566 | -0.03773 | 0.01044 |
| 512_RPA0515_CDS;__57 | -0.15015 | -0.02527 | 0.01939 | -0.08156 |
| 513_RPA0516_CDS;__57 | -0.21938 | 0.05391 | 0.14273 | 0.17473 |
| 514_RPA0517_CDS;__57 | -0.07036 | -0.02987 | 0.07829 | 0.06259 |
| 515_RPA0518_CDS;__57 | 0.02896 | 0.00669 | 0.17820 | 0.08415 |
| 516_RPA0519_gcpE;__5 | -0.18957 | -0.05891 | -0.12074 | 0.01707 |
| 517_RPA0520_nha;__57 | -0.02458 | -0.08956 | 0.08023 | -0.00643 |

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| 518_RPA0521_CDS;__58 | -0.06235 | 0.02855 | 0.15012 | -0.01317 |
| 519_RPA0522_CDS;__58 | -0.05588 | -0.21938 | -0.02126 | -0.06893 |
| 520_RPA0523_CDS;__58 | -0.18900 | 0.02128 | 0.06419 | 0.02813 |
| 521_RPA0524_CDS;__58 | -0.16615 | 0.10457 | -0.03837 | 0.06354 |
| 522_RPA0525_CDS;__58 | 0.07787 | 0.12073 | -0.10644 | -0.14932 |
| 523_RPA0526_rpmF,_L3 | 0.07585 | 0.15021 | -0.34206 | 0.16251 |
| 524_RPA0527_CDS;__58 | -0.08067 | 0.07750 | -0.09645 | -0.01373 |
| 525_RPA0528_CDS;__58 | 0.50361 | 0.15640 | 0.06631 | 0.21765 |
| 526_RPA0529_CDS;__58 | -0.05063 | 0.05281 | 0.01667 | 0.00511 |
| 527_RPA0530_CDS;__59 | 0.07159 | -0.20486 | 0.00989 | 0.00638 |
| 528_RPA0531_CDS;__59 | -0.05352 | 0.10157 | -0.11980 | -0.09395 |
| 529_RPA0532_CDS;__59 | 0.01959 | -0.12195 | -0.02243 | -0.10874 |
| 530_RPA0533_CDS;__59 | 0.00003 | 0.00154 | 0.19563 | -0.14819 |
| 531_RPA0534_CDS;__59 | -0.03957 | 0.01256 | -0.13958 | -0.04687 |
| 532_RPA0535_hrpB;__5 | -0.02391 | 0.06029 | 0.07482 | 0.09539 |
| 533_RPA0536_CDS;__59 | 0.00209 | 0.01810 | 0.16599 | -0.06497 |
| 534_RPA0537_CDS;__59 | -0.18243 | 0.09886 | -0.12448 | 0.00198 |
| 535_RPA0538_CDS;__60 | -0.10970 | 0.14458 | -0.33933 | -0.20530 |
| 536_RPA0539_CDS;__60 | 0.26896 | 0.05557 | -0.00102 | -0.11370 |
| 537_RPA0540_CDS;__60 | 0.23798 | -0.04994 | 0.00953 | 0.11609 |
| 538_RPA0541_CDS;__60 | -0.07880 | 0.05955 | 0.02220 | 0.01571 |
| 539_RPA0542_CDS;__60 | -0.03459 | 0.02155 | 0.16286 | -0.03524 |
| 540_RPA0543_CDS;__60 | 0.29003 | 0.13627 | 0.04176 | -0.12036 |
| 541_RPA0544_CDS;__60 | 0.18100 | 0.05618 | 0.23824 | -0.12124 |
| 542_RPA0545_CDS;__60 | -0.08092 | -0.54336 | -0.06393 | 0.04333 |
| 543_RPA0546_CDS;__60 | 0.06712 | -0.03340 | 0.09101 | -0.12415 |
| 544_RPA0547_CDS;__60 | -0.13022 | 0.02329 | 0.18710 | -0.00536 |
| 545_RPA0548_CDS;__61 | -0.04920 | -0.06209 | 0.16704 | 0.00506 |
| 546_RPA0549_ChrR;__6 | -0.02139 | 0.04506 | 0.15266 | 0.10474 |
| 547_RPA0550_CDS;__61 | 0.06794 | 0.06776 | 0.08743 | -0.02917 |
| 548_RPA0551_CDS;__61 | 0.09843 | -0.32335 | 0.05611 | -0.12255 |
| 549_RPA0552_dctA;__6 | -0.17407 | 0.00666 | 0.11397 | 0.06396 |
| 550_RPA0553_CDS;__61 | -0.13192 | -0.08648 | 0.06231 | 0.06758 |
| 551_RPA0554_CDS;__61 | 0.02924 | 0.08968 | 0.10679 | -0.10883 |
| 552_RPA0555_CDS;__61 | 0.02730 | 0.06886 | 0.09539 | 0.10834 |
| 553_RPA0556_CDS;__61 | 0.01163 | 0.07830 | 0.04516 | 0.05328 |
| 554_RPA0557_cysK;__6 | -0.25637 | -0.01775 | -0.10760 | -0.05881 |
| 555_RPA0558_purC;__ | -0.23767 | 0.03980 | 0.07695 | -0.06921 |
| 556_RPA0559_CDS;__62 | -0.09757 | 0.02770 | 0.16166 | -0.03956 |
| 557_RPA0560_MLYCD,_M | -0.13169 | 0.04549 | 0.06217 | -0.02192 |
| 558_RPA0561_CDS;__62 | -0.20676 | 0.10512 | -0.08491 | 0.09471 |
| 559_RPA0562_CDS;__62 | -0.14742 | 0.05088 | -0.01899 | -0.08037 |
| 560_RPA0563_CDS;__62 | -0.04744 | 0.02521 | 0.08485 | 0.04618 |
| 561_RPA0564_CDS;__62 | -0.20829 | -0.00835 | -0.05854 | 0.07101 |
| 562_RPA0565_CDS;__62 | 0.03932 | 0.04103 | 0.08592 | 0.04711 |
| 563_RPA0566_CDS;__62 | 0.01764 | 0.03866 | -0.14423 | -0.15152 |
| 564_RPA0567_CDS;__62 | 0.00399 | -0.05049 | 0.08535 | 0.09682 |
| 565_RPA0568_CDS;__63 | -0.15904 | 0.08448 | 0.03519 | 0.04739 |
| 566_RPA0569_CDS;__63 | -0.03920 | -0.02498 | 0.06730 | -0.04434 |
| 567_RPA0570_CDS;__63 | -0.09846 | 0.02796 | 0.07162 | 0.02563 |
| 568_RPA0571_RegR;__6 | -0.25642 | 0.09529 | -0.11792 | 0.02656 |
| 569_RPA0572_CDS;__63 | -0.16932 | 0.04453 | 0.07623 | 0.02059 |
| 570_RPA0573_CDS;__63 | 0.05271 | 0.03830 | 0.12152 | -0.08997 |
| 571_RPA0574_CDS;__63 | 0.01897 | -0.20317 | 0.05444 | -0.05431 |
| 572_RPA0575_CDS;__63 | -0.10497 | -0.18036 | -0.03135 | -0.14215 |
| 573_RPA0576_CDS;__63 | -0.01277 | -0.12672 | -0.06320 | 0.02593 |
| 574_RPA0577_CDS;__64 | -0.17172 | -0.03568 | 0.05869 | 0.08530 |

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| 575_RPA0578_CDS;__64 | 0.06206 | 0.04633 | 0.12536 | -0.02859 |
| 576_RPA0579_CDS;__64 | -0.05405 | 0.03632 | 0.14035 | 0.18714 |
| 577_RPA0580_CDS;__64 | -0.13621 | 0.07705 | 0.04707 | 0.10570 |
| 578_RPA0581_CDS;__64 | 0.02643 | 0.06544 | 0.19557 | -0.20831 |
| 579_RPA0582_CDS;__64 | 0.09501 | 0.01546 | 0.03022 | -0.40558 |
| 580_RPA0583_CDS;__64 | 0.02895 | -0.12674 | 0.05753 | 0.04522 |
| 581_RPA0584_CDS;__64 | -0.23920 | 0.04513 | 0.01660 | 0.02153 |
| 582_RPA0585_CDS;__65 | 0.00551 | -0.08695 | 0.15542 | 0.03480 |
| 583_RPA0586_CDS;__65 | -0.00780 | 0.06450 | 0.18300 | -0.06797 |
| 584_RPA0587_CDS;__65 | -0.11067 | 0.03847 | 0.08397 | 0.03141 |
| 585_RPA0588_CDS;__65 | -0.02161 | 0.05995 | 0.14577 | -0.00464 |
| 586_RPA0589_CDS;__65 | -0.19930 | 0.03198 | 0.06643 | 0.00571 |
| 587_RPA0590_prc;__65 | -0.29929 | -0.01446 | -0.11149 | -0.03816 |
| 588_RPA0591_glnD;__6 | -0.18939 | -0.05637 | 0.01987 | 0.06871 |
| 589_RPA0592_argJ;__6 | -0.30028 | 0.05855 | -0.05120 | 0.03994 |
| 590_RPA0593_CDS;__66 | 0.30171 | -0.00233 | 0.05907 | 0.03634 |
| 591_RPA0594_mutT;__6 | -0.17171 | -0.24388 | 0.15222 | 0.07799 |
| 592_RPA0595_CDS;__66 | -0.10851 | -0.01765 | 0.05559 | -0.02596 |
| 593_RPA0596_CDS;__66 | -0.09313 | 0.04452 | 0.06035 | 0.11650 |
| 594_RPA0597_CDS;__66 | 0.08046 | -0.03502 | 0.04398 | -0.07156 |
| 595_RPA0598_CDS;__66 | -0.18445 | -0.09379 | -0.06569 | 0.06618 |
| 596_RPA0599_CDS;__66 | -0.13560 | -0.21878 | -0.08356 | 0.00289 |
| 597_RPA0600_CDS;__66 | -0.05835 | 0.07536 | -0.00250 | 0.06256 |
| 598_RPA0601_CDS;__66 | -0.02616 | 0.05244 | 0.12509 | 0.13142 |
| 599_RPA0602_CDS;__66 | -0.23066 | -0.04812 | -0.01146 | 0.00880 |
| 600_RPA0603_ubiG;__6 | -0.07913 | 0.04190 | 0.14841 | 0.10293 |
| 601_RPA0604_lysC;__6 | -0.14575 | 0.05974 | 0.02050 | 0.00490 |
| 602_RPA0605_ptsP;__6 | -0.11336 | 0.08461 | -0.06879 | 0.03577 |
| 603_RPA0606_prfA;__6 | -0.17894 | 0.01945 | -0.10211 | 0.02293 |
| 604_RPA0607_hemK;__6 | 0.41220 | 0.02358 | -0.15468 | 0.06107 |
| 605_RPA0608_CDS;__67 | 0.03918 | 0.08756 | -0.31214 | -0.03755 |
| 606_RPA0609_CDS;__67 | -0.01173 | 0.01991 | 0.13653 | 0.02562 |
| 607_RPA0610_CDS;__67 | 0.00669 | -0.03245 | -0.13694 | 0.06062 |
| 608_RPA0611_CDS;__67 | 0.06933 | 0.06671 | 0.18326 | -0.29069 |
| 609_RPA0612_CDS;__67 | -0.12386 | 0.06253 | 0.05161 | 0.08575 |
| 610_RPA0613_CDS;__68 | -0.02928 | 0.06824 | 0.01028 | 0.06531 |
| 611_RPA0614_CDS;__68 | 0.10217 | 0.07402 | 0.22821 | 0.22237 |
| 612_RPA0615_dnaX;__6 | -0.04782 | 0.06288 | 0.07387 | -0.03391 |
| 613_RPA0616_CDS;__68 | -0.07478 | 0.00366 | -0.11240 | -0.06977 |
| 614_RPA0617_recR;__6 | 0.21381 | 0.15410 | -0.16660 | 0.02409 |
| 615_RPA0618_CDS;__68 | 0.13452 | 0.02023 | 0.21069 | -0.01731 |
| 616_RPA0619_ampG;__ | -0.13720 | 0.04698 | 0.08539 | 0.11264 |
| 617_RPA0620_CDS;__68 | -0.00210 | 0.06684 | 0.07605 | 0.00168 |
| 618_RPA0621_def;__68 | -0.15447 | 0.06675 | 0.01010 | 0.08163 |
| 619_RPA0622_fmt;__68 | -0.03952 | -0.13280 | 0.05966 | -0.01068 |
| 620_RPA0623_truA;__6 | -0.03598 | -0.21109 | -0.01516 | -0.19824 |
| 621_RPA0624_dapE;__6 | -0.05073 | 0.12499 | -0.09439 | -0.00671 |
| 622_RPA0625_CDS;__69 | 0.02311 | 0.13139 | 0.02440 | 0.11403 |
| 623_RPA0626_dapD;__6 | -0.18869 | 0.13586 | -0.20844 | 0.02898 |
| 624_RPA0627_CDS;__69 | -0.19826 | -0.01279 | -0.01008 | 0.04722 |
| 625_RPA0628_CDS;__69 | 0.01029 | 0.10579 | 0.09392 | 0.01103 |
| 626_RPA0629_argB;__6 | -0.21768 | 0.12906 | -0.16039 | 0.06744 |
| 627_RPA0630_CDS;__69 | 0.08344 | 0.08200 | 0.16728 | 0.16269 |
| 628_RPA0631_CDS;__69 | -0.15720 | 0.00734 | -0.03465 | 0.08623 |
| 629_RPA0632_CDS;__69 | -0.06784 | -0.43975 | -0.22792 | 0.07607 |
| 630_RPA0633_rnpA;__7 | 0.21408 | 0.01521 | 0.09089 | 0.10319 |
| 631_RPA0634_rpmH,_L3 | 0.35478 | 0.03809 | 0.07160 | -0.04993 |

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| 632_RPA0635_CDS;__70 | -0.07339 | 0.03452 | 0.09801 | -0.09331 |
| 633_RPA0636_CDS;__70 | -0.09542 | -0.08964 | 0.04497 | -0.13789 |
| 634_RPA0637_CDS;__70 | 0.14941 | -0.02399 | 0.13762 | 0.04159 |
| 635_RPA0638_CDS;__70 | 0.18249 | -0.03175 | 0.02725 | -0.04519 |
| 636_RPA0639_sigE;__7 | 0.02325 | 0.04700 | 0.13467 | -0.32497 |
| 637_RPA0640_fliC;__7 | -0.17672 | -0.03214 | 0.03199 | 0.00174 |
| 638_RPA0641_fliD;__7 | 0.12103 | 0.05289 | -0.00500 | 0.06045 |
| 639_RPA0642_CDS;__71 | -0.01711 | 0.01439 | 0.28301 | 0.12833 |
| 640_RPA0643_CDS;__71 | 0.40702 | 0.22729 | -0.15965 | 0.17976 |
| 641_RPA0644_flgD;__7 | 0.17054 | 0.15565 | 0.02564 | 0.14009 |
| 642_RPA0645_flgE;__7 | 0.15040 | 0.04328 | -0.01468 | 0.06084 |
| 643_RPA0646_CDS;__71 | 0.10826 | -0.05647 | 0.23702 | 0.04948 |
| 644_RPA0647_CDS;__71 | 0.12200 | -0.22250 | 0.07160 | 0.12764 |
| 645_RPA0648_flgK;__7 | 0.01199 | -0.47946 | -0.11242 | -0.07756 |
| 646_RPA0649_flgL;__7 | 0.04437 | 0.02022 | 0.05097 | -0.00407 |
| 647_RPA0650_badK;__7 | -0.08191 | 0.05229 | 0.11435 | -0.00747 |
| 648_RPA0651_aliA;__7 | -0.08088 | -0.09749 | 0.04383 | 0.00221 |
| 649_RPA0652_aliB;__7 | -0.08475 | -0.04448 | -0.02969 | 0.03461 |
| 650_RPA0653_badI;__7 | -0.24829 | 0.07976 | -0.06476 | 0.02531 |
| 651_RPA0654_badH;__7 | -0.22213 | 0.08278 | 0.00414 | 0.09530 |
| 652_RPA0655_badR;__7 | 0.17029 | 0.07939 | 0.00735 | 0.00528 |
| 653_RPA0656_badC;__7 | -0.03062 | 0.03226 | 0.17212 | -0.03729 |
| 654_RPA0657_badD;__7 | -0.08810 | 0.04746 | 0.09111 | 0.01820 |
| 655_RPA0658_badE;__7 | -0.14243 | 0.08293 | 0.02493 | 0.07748 |
| 656_RPA0659_badF;__7 | -0.10353 | -0.01773 | -0.07762 | 0.01518 |
| 657_RPA0660_badG;__7 | -0.12544 | -0.09329 | -0.00826 | 0.00950 |
| 658_RPA0661_badA;__7 | -0.07488 | 0.04025 | 0.07690 | 0.05087 |
| 659_RPA0662_badB;__7 | 0.10330 | 0.05584 | 0.09162 | -0.37183 |
| 660_RPA0663_badM;__7 | 0.13331 | -0.46750 | -0.15292 | 0.11881 |
| 661_RPA0664_badL;__7 | 0.19839 | 0.04087 | 0.30141 | -0.45050 |
| 662_RPA0665_hbaH;__7 | -0.06157 | 0.05033 | -0.02038 | 0.15409 |
| 663_RPA0666_hbaG;__7 | -0.09902 | -0.22486 | 0.01074 | 0.06826 |
| 664_RPA0667_hbaF;__7 | -0.10608 | 0.03876 | 0.10986 | -0.10781 |
| 665_RPA0668_hbaE;__7 | -0.06025 | 0.11622 | -0.11340 | -0.02085 |
| 666_RPA0669_hbaA;__7 | 0.13712 | 0.08152 | 0.09940 | -0.00297 |
| 667_RPA0670_hbaB;__7 | 0.00333 | 0.12105 | -0.14833 | 0.00056 |
| 668_RPA0671_hbaC;__7 | 0.05614 | -0.08845 | 0.11920 | -0.07823 |
| 669_RPA0672_hbaD;__7 | 0.05488 | -0.07993 | 0.12744 | -0.05180 |
| 670_RPA0673_hbaR;__7 | 0.03032 | 0.03010 | 0.10011 | -0.20069 |
| 671_RPA0674_CDS;__74 | -0.05255 | -0.11914 | 0.23988 | 0.05561 |
| 672_RPA0675_CDS;__74 | 0.05470 | 0.09747 | -0.02807 | -0.02548 |
| 673_RPA0676_CDS;__74 | 0.01123 | 0.10225 | -0.06814 | -0.00560 |
| 674_RPA0677_CDS;__74 | -0.19364 | 0.05075 | -0.04961 | -0.03357 |
| 675_RPA0678_gltA;__7 | -0.08462 | -0.04010 | -0.01960 | -0.02853 |
| 676_RPA0679_CDS;__75 | -0.04159 | -0.02171 | -0.03087 | -0.03049 |
| 677_RPA0680_CDS;__75 | 0.24853 | -0.11154 | 0.13498 | 0.02753 |
| 678_RPA0681_CDS;__75 | 0.03466 | -0.44433 | -0.14673 | -0.15072 |
| 679_RPA0682_CDS;__75 | 0.02785 | -0.04201 | 0.00034 | 0.03736 |
| 680_RPA0683_CDS;__75 | 0.07588 | 0.08204 | -0.04863 | -0.01086 |
| 681_RPA0684_CDS;__76 | 0.08513 | 0.18876 | -0.25632 | -0.55176 |
| 682_RPA0685_CDS;__76 | 0.27929 | -0.35699 | 0.05256 | -0.04371 |
| 683_RPA0686_CDS;__76 | -0.00034 | 0.01959 | -0.07066 | 0.00883 |
| 684_RPA0687_CDS;__76 | -0.05500 | -0.20012 | -0.09365 | 0.05802 |
| 685_RPA0688_phnN;__7 | 0.07288 | -0.46223 | -0.00715 | 0.14202 |
| 686_RPA0689_phnM1;__7 | -0.22688 | 0.06288 | -0.00771 | 0.05729 |
| 687_RPA0690_phnL;__7 | -0.18437 | 0.03235 | 0.10249 | -0.05985 |
| 688_RPA0691_phnK;__7 | 0.02180 | -0.52078 | -0.02507 | 0.12087 |

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|----------------------|----------|----------|----------|----------|
| 689_RPA0692_phnJ;__7 | -0.17524 | 0.03827 | 0.05454 | 0.02034 |
| 690_RPA0693_phnI;__7 | -0.02133 | 0.08648 | 0.07486 | 0.06031 |
| 691_RPA0694_phnH;__7 | 0.14903 | -0.02739 | 0.17593 | 0.00811 |
| 692_RPA0695_phnG;__7 | -0.07026 | 0.06997 | 0.02403 | 0.08591 |
| 693_RPA0696_CDS;__77 | 0.04178 | -0.04399 | 0.15523 | -0.02964 |
| 694_RPA0697_phnE1;__ | -0.04645 | 0.08936 | 0.01745 | 0.05725 |
| 695_RPA0698_phnE2;__ | 0.00821 | 0.07585 | 0.03019 | 0.07686 |
| 696_RPA0699_phnD;__7 | -0.32949 | 0.09633 | -0.13845 | 0.00311 |
| 697_RPA0700_phnC;__7 | -0.15383 | 0.09724 | -0.09853 | 0.06745 |
| 698_RPA0701_CDS;__77 | 0.08793 | 0.11775 | -0.03487 | 0.09642 |
| 699_RPA0702_phnM2;__ | -0.10916 | 0.06158 | 0.05457 | -0.11673 |
| 700_RPA0703_CDS;__77 | 0.02067 | -0.16192 | 0.12078 | 0.04436 |
| 701_RPA0704_CDS;__77 | 0.06001 | 0.08624 | 0.03053 | 0.08605 |
| 702_RPA0705_CDS;__77 | 0.07367 | 0.07111 | -0.06191 | 0.13086 |
| 703_RPA0706_nthB;__ | 0.29086 | -0.17224 | 0.08536 | -0.20944 |
| 704_RPA0707_cutA;__7 | -0.12967 | 0.06211 | 0.14777 | 0.14161 |
| 705_RPA0708_CDS;__78 | 0.44444 | 0.11396 | -0.13424 | -0.10850 |
| 706_RPA0709_CDS;__78 | -0.03073 | 0.07903 | 0.11465 | -0.30311 |
| 707_RPA0710_CDS;__78 | 0.60911 | -0.40499 | -0.19036 | -0.27360 |
| 708_RPA0711_CDS;__78 | -0.05693 | 0.07080 | 0.02022 | 0.03186 |
| 709_RPA0712_cobT,_co | -0.06281 | 0.01522 | 0.11683 | 0.06169 |
| 710_RPA0713_CDS;__78 | 0.07278 | 0.12105 | -0.01014 | -0.05107 |
| 711_RPA0714_cobU;__7 | 0.01554 | 0.12378 | 0.00618 | 0.10041 |
| 712_RPA0715_cobW;__7 | -0.12555 | 0.06194 | -0.01933 | -0.03208 |
| 713_RPA0716_cobN;__ | 0.04566 | -0.09757 | 0.09220 | -0.06342 |
| 714_RPA0717_cobO,_co | -0.01613 | 0.05665 | -0.18181 | 0.01695 |
| 715_RPA0718_cobQ,_cb | -0.07009 | 0.01835 | 0.12867 | -0.04809 |
| 716_RPA0719_cobD,_cb | -0.00227 | 0.06300 | 0.05554 | 0.07978 |
| 717_RPA0720_CDS;__79 | 0.04375 | 0.04955 | 0.11346 | -0.04587 |
| 718_RPA0721_cobC;__7 | 0.10943 | -0.27514 | -0.10182 | -0.10112 |
| 719_RPA0722_fecE;__ | -0.10540 | -0.03726 | 0.03906 | 0.03536 |
| 720_RPA0723_CDS;__79 | -0.15741 | -0.04922 | 0.02366 | 0.01352 |
| 721_RPA0724_nxiA,_ni | -0.19083 | -0.05290 | 0.07243 | 0.06512 |
| 722_RPA0725_sugE;__ | -0.07993 | -0.07075 | 0.50601 | 0.14006 |
| 723_RPA0726_btaB;__7 | -0.09256 | 0.03540 | 0.09425 | -0.05037 |
| 724_RPA0727_CDS;__79 | -0.16280 | 0.03407 | 0.09412 | 0.03878 |
| 725_RPA0728_CDS;__80 | 0.29891 | 0.00133 | 0.00674 | 0.00032 |
| 726_RPA0729_CDS;__80 | 0.30075 | -0.17729 | 0.09238 | 0.23449 |
| 727_RPA0730_CDS;__80 | 0.38122 | 0.03292 | 0.01576 | 0.03582 |
| 728_RPA0731_CDS;__80 | -0.07429 | -0.12619 | 0.04081 | 0.06770 |
| 729_RPA0732_fdsG;__8 | -0.13281 | -0.11865 | 0.08059 | 0.04824 |
| 730_RPA0733_fdsB;__8 | -0.14856 | 0.05392 | 0.03791 | -0.04653 |
| 731_RPA0734_fdsA;__8 | -0.24296 | 0.01429 | -0.01252 | 0.05853 |
| 732_RPA0735_fdsC;__8 | -0.05270 | 0.07047 | 0.03251 | 0.02181 |
| 733_RPA0736_fdsD;__8 | 0.20759 | -0.08378 | 0.25922 | 0.03023 |
| 734_RPA0737_CDS;__81 | -0.08136 | -0.01460 | -0.01909 | 0.07369 |
| 735_RPA0738_CDS;__81 | 0.09157 | 0.15288 | -0.12817 | 0.06615 |
| 736_RPA0739_cyc;__8 | 0.15747 | -0.13483 | 0.02833 | -0.19990 |
| 737_RPA0740_CDS;__81 | 0.14509 | 0.05574 | 0.13154 | -0.25163 |
| 738_RPA0741_CDS;__81 | -0.14020 | 0.05464 | 0.09939 | 0.09622 |
| 739_RPA0742_CDS;__81 | -0.12942 | 0.05128 | 0.02240 | -0.01898 |
| 740_RPA0743_CDS;__81 | -0.03157 | -0.02195 | 0.08550 | -0.00404 |
| 741_RPA0744_CDS;__82 | -0.04498 | -0.04638 | -0.03473 | -0.01071 |
| 742_RPA0745_CDS;__82 | -0.06932 | 0.00036 | 0.01340 | 0.01663 |
| 743_RPA0746_CDS;__82 | -0.08867 | -0.01138 | -0.09482 | 0.03970 |
| 744_RPA0747_cysA;__ | -0.09907 | 0.01013 | -0.05396 | -0.05506 |
| 745_RPA0748_cysW;__8 | 0.02996 | 0.08691 | -0.06284 | -0.20254 |

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| 746_RPA0749_cysT;__8 | -0.05309 | 0.04842 | 0.00552 | 0.02292 |
| 747_RPA0750_sbp;__8 | -0.13537 | 0.04908 | -0.26933 | -0.07996 |
| 748_RPA0751_cysH;__8 | 0.14793 | 0.02885 | -0.21821 | -0.00746 |
| 749_RPA0752_cysD;__8 | -0.12738 | 0.08432 | -0.08481 | -0.16005 |
| 750_RPA0753_cysN;__8 | -0.19229 | 0.05834 | -0.04790 | -0.08548 |
| 751_RPA0754_CDS;__83 | 0.05376 | -0.18727 | -0.03241 | 0.09521 |
| 752_RPA0755_oppD;__83 | -0.16849 | 0.05925 | 0.01757 | 0.04754 |
| 753_RPA0756_CDS;__83 | -0.11625 | -0.02050 | -0.02944 | 0.05999 |
| 754_RPA0757_CDS;__83 | 0.79132 | 0.16094 | -0.28815 | 0.04251 |
| 755_RPA0758_oppF;__ap | -0.10123 | -0.26352 | -0.08622 | 0.03268 |
| 756_RPA0759_dppC;__op | -0.15084 | 0.04678 | 0.10818 | 0.02497 |
| 757_RPA0760_nikB;__dp | -0.17200 | -0.49600 | -0.15998 | 0.05355 |
| 758_RPA0761_CDS;__84 | -0.16190 | -0.45782 | -0.28849 | -0.05177 |
| 759_RPA0762_CDS;__84 | -0.11801 | -0.01500 | -0.00141 | -0.02788 |
| 760_RPA0763_CDS;__84 | 0.11360 | 0.04990 | 0.21844 | 0.08680 |
| 761_RPA0764_CDS;__84 | 0.04740 | 0.05049 | -0.13961 | -0.01287 |
| 762_RPA0765_CDS;__84 | -0.16669 | 0.03901 | 0.12901 | 0.08332 |
| 763_RPA0766_nnrR;__8 | 0.04317 | 0.05704 | 0.11685 | 0.06011 |
| 764_RPA0767_CDS;__85 | 0.01164 | 0.05474 | 0.11747 | 0.00851 |
| 765_RPA0768_CDS;__85 | -0.10264 | 0.10549 | 0.03859 | 0.14722 |
| 766_RPA0769_CDS;__85 | 1.37033 | -0.06541 | -0.10386 | 0.06196 |
| 767_RPA0770_CDS;__85 | 0.21131 | 0.04078 | 0.06086 | 0.13272 |
| 768_RPA0771_CDS;__85 | 0.16928 | 0.06371 | 0.11278 | 0.07407 |
| 769_RPA0772_CDS;__85 | 1.11882 | -0.12701 | -0.18178 | 0.11109 |
| 770_RPA0773_CDS;__85 | 0.70319 | 0.09384 | -0.09931 | -0.10281 |
| 771_RPA0774_CDS;__85 | 0.28509 | 0.14419 | -0.05497 | -0.12883 |
| 772_RPA0775_CDS;__85 | 0.57863 | -0.15763 | 0.06920 | -0.02055 |
| 773_RPA0776_CDS;__85 | -0.14575 | -0.12092 | 0.13124 | 0.06690 |
| 774_RPA0777_CDS;__86 | -0.07498 | 0.01880 | -0.00477 | 0.01131 |
| 775_RPA0778_CDS;__86 | -0.07766 | 0.05410 | 0.16290 | 0.00886 |
| 776_RPA0779_CDS;__86 | -0.16630 | 0.01354 | -0.09514 | 0.03257 |
| 777_RPA0780_CDS;__86 | -0.06256 | 0.02974 | 0.06510 | 0.04578 |
| 778_RPA0781_CDS;__86 | -0.05438 | -0.24431 | -0.01692 | 0.04472 |
| 779_RPA0782_CDS;__86 | -0.15337 | 0.12026 | -0.20117 | -0.10522 |
| 780_RPA0783_CDS;__86 | -0.09744 | -0.05711 | -0.04915 | 0.04396 |
| 781_RPA0784_CDS;__86 | -0.09847 | 0.06938 | 0.02665 | -0.04840 |
| 782_RPA0785_CDS;__87 | -0.11869 | 0.05866 | 0.01251 | -0.01807 |
| 783_RPA0786_CDS;__87 | -0.10366 | -0.04042 | 0.11055 | -0.10763 |
| 784_RPA0787_CDS;__87 | -0.14597 | 0.05134 | 0.03138 | -0.19994 |
| 785_RPA0788_CDS;__87 | -0.13199 | -0.10062 | 0.05572 | 0.02993 |
| 786_RPA0789_CDS;__87 | -0.17375 | 0.05376 | 0.06274 | 0.06031 |
| 787_RPA0790_CDS;__87 | -0.13862 | 0.01966 | 0.19738 | 0.08445 |
| 788_RPA0791_exoI;__8 | 0.08372 | 0.07073 | -0.00772 | 0.02285 |
| 789_RPA0792_CDS;__87 | -0.05017 | -0.06727 | 0.05109 | 0.06917 |
| 790_RPA0793_CDS;__88 | -0.10211 | -0.04554 | -0.01214 | -0.03979 |
| 791_RPA0794_acaP;__8 | -0.15692 | -0.04679 | -0.13039 | 0.00374 |
| 792_RPA0795_CDS;__88 | 0.03931 | -0.01899 | 0.07917 | 0.02680 |
| 793_RPA0796_CDS;__88 | 0.25172 | -0.19722 | -0.11177 | 0.08731 |
| 794_RPA0797_uraI;__8 | -0.18726 | -0.09129 | 0.12462 | -0.04804 |
| 795_RPA0798_CDS;__88 | -0.02122 | -0.11137 | 0.13947 | 0.10327 |
| 796_RPA0799_CDS;__88 | -0.13867 | 0.07921 | 0.14768 | -0.15853 |
| 797_RPA0800_matE;__8 | -0.03304 | -0.22213 | -0.02828 | -0.01908 |
| 798_RPA0801_CDS;__88 | 0.01424 | -0.02708 | 0.13338 | 0.09849 |
| 799_RPA0802_CDS;__88 | -0.01588 | 0.07902 | 0.05763 | 0.02280 |
| 800_RPA0803_CDS;__89 | -0.05454 | 0.08819 | 0.00782 | 0.16781 |
| 801_RPA0804_CDS;__89 | 0.02336 | 0.07231 | 0.00776 | 0.05760 |
| 802_RPA0805_CDS;__89 | -0.25137 | 0.03019 | -0.19396 | -0.14763 |

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| 803_RPA0806_CDS;__89 | -0.26406 | 0.07520 | -0.07549 | 0.02462 |
| 804_RPA0807_CDS;__89 | -0.01734 | -0.00287 | -0.00627 | 0.03623 |
| 805_RPA0808_CDS;__89 | -0.01665 | -0.12021 | 0.19730 | 0.09096 |
| 806_RPA0809_CDS;__89 | 0.02161 | 0.05302 | 0.16054 | -0.05019 |
| 807_RPA0810_CDS;__90 | -0.03679 | 0.04652 | 0.14652 | 0.05574 |
| 808_RPA0811_CDS;__90 | -0.03864 | -0.19022 | -0.03133 | 0.07236 |
| 809_RPA0812_CDS;__90 | -0.17085 | -0.05587 | 0.11789 | -0.03678 |
| 810_RPA0813_CDS;__90 | -0.18074 | 0.07929 | -0.04457 | 0.07545 |
| 811_RPA0814_CDS;__90 | -0.03014 | -0.45830 | -0.13404 | 0.03491 |
| 812_RPA0815_CDS;__90 | 0.35890 | 0.02369 | -0.14260 | 0.21012 |
| 813_RPA0816_CDS;__90 | -0.23148 | 0.03699 | 0.01803 | -0.00764 |
| 814_RPA0817_CDS;__91 | -0.27316 | 0.02916 | -0.01635 | -0.04972 |
| 815_RPA0818_CDS;__91 | -0.29000 | -0.01221 | -0.05400 | -0.01301 |
| 816_RPA0819_CDS;__91 | 1.24262 | 0.09411 | -0.08155 | 0.01814 |
| 817_RPA0820_gst;__9 | -0.16371 | -0.27092 | 0.07541 | -0.01639 |
| 818_RPA0821_CDS;__91 | 0.10524 | 0.07439 | 0.03880 | 0.07231 |
| 819_RPA0822_gshA;__9 | -0.18305 | 0.06206 | -0.06647 | -0.03944 |
| 820_RPA0823_CDS;__92 | 0.03665 | -0.00883 | -0.04593 | 0.02812 |
| 821_RPA0824_lepB;__9 | -0.14224 | -0.03152 | 0.00314 | 0.04012 |
| 822_RPA0825_CDS;__92 | -0.10908 | 0.05848 | 0.01762 | 0.03621 |
| 823_RPA0826_CDS;__92 | 0.18836 | 0.02719 | 0.22486 | -0.45051 |
| 824_RPA0827_CDS;__92 | 0.43619 | -0.09193 | 0.11202 | 0.20548 |
| 825_RPA0828_CDS;__92 | 0.00270 | 0.02145 | 0.11846 | 0.07704 |
| 826_RPA0829_ohr;__9 | -0.13349 | 0.06763 | 0.00397 | -0.01740 |
| 827_RPA0830_CDS;__92 | -0.00905 | 0.12610 | -0.05735 | 0.11080 |
| 828_RPA0831_coxB;__9 | -0.02638 | -0.04154 | -0.17388 | -0.06851 |
| 829_RPA0832_coxA;__9 | -0.16116 | -0.03798 | -0.00851 | 0.05709 |
| 830_RPA0833_coxE;__9 | -0.13947 | 0.05859 | 0.02564 | 0.08798 |
| 831_RPA0834_CoxF;__9 | -0.13225 | -0.07300 | 0.00087 | -0.04050 |
| 832_RPA0835_coxG;__9 | 0.08205 | 0.09748 | 0.00846 | -0.01463 |
| 833_RPA0836_coxC;__9 | -0.15434 | -0.04629 | -0.10089 | -0.00202 |
| 834_RPA0837_CDS;__93 | 0.04887 | -0.13411 | 0.06836 | 0.03332 |
| 835_RPA0838_CDS;__93 | -0.04442 | -0.06502 | 0.13191 | -0.10973 |
| 836_RPA0839_thrC;__9 | -0.08518 | 0.04605 | 0.02042 | 0.01313 |
| 837_RPA0840_mpp;__93 | -0.05956 | -0.10016 | -0.01404 | 0.09618 |
| 838_RPA0841_CDS;__93 | -0.10585 | 0.08171 | 0.02045 | 0.10368 |
| 839_RPA0842_CDS;__93 | -0.03166 | -0.15752 | 0.03664 | -0.07433 |
| 840_RPA0843_atpF1;__ | -0.19695 | 0.01197 | -0.12902 | -0.02638 |
| 841_RPA0844_atpF2;__ | -0.07658 | 0.00070 | -0.16801 | -0.13548 |
| 842_RPA0845_atpE;__9 | -0.17176 | 0.14170 | -0.55004 | -0.42157 |
| 843_RPA0846_atpB;__9 | -0.05755 | 0.06507 | -0.06300 | -0.03411 |
| 844_RPA0847_atpI;__9 | 0.81408 | 0.12888 | 0.00848 | 0.11329 |
| 845_RPA0848_CDS;__94 | 0.00782 | -0.01553 | -0.08507 | -0.00950 |
| 846_RPA0849_CDS;__94 | 0.08484 | 0.07444 | 0.12140 | -0.08061 |
| 847_RPA0850_CDS;__94 | 0.14392 | -0.03869 | 0.06778 | -0.09116 |
| 848_RPA0851_CDS;__94 | -0.19554 | 0.06971 | -0.06620 | 0.00721 |
| 849_RPA0852_CDS;__94 | -0.11008 | -0.00604 | -0.02074 | 0.06113 |
| 850_RPA0853_CDS;__94 | -0.13152 | 0.05567 | 0.05187 | 0.01913 |
| 851_RPA0854_hemO;__9 | -0.14012 | 0.02247 | -0.14917 | -0.10944 |
| 852_RPA0855_CDS;__95 | -0.07044 | -0.17021 | -0.01925 | -0.09825 |
| 853_RPA0856_CDS;__95 | -0.09230 | -0.01129 | 0.01208 | -0.08000 |
| 854_RPA0857_CDS;__95 | -0.15593 | 0.11615 | -0.44416 | -0.21695 |
| 855_RPA0858_CDS;__95 | 0.06047 | 0.03990 | 0.07995 | -0.08608 |
| 856_RPA0859_CDS;__95 | -0.09659 | 0.01044 | 0.08926 | -0.05299 |
| 857_RPA0860_CDS;__95 | -0.04000 | 0.03902 | -0.05453 | 0.08314 |
| 858_RPA0861_CDS;__95 | -0.14650 | 0.08069 | -0.00561 | -0.08436 |
| 859_RPA0862_CDS;__95 | -0.10179 | -0.24106 | 0.00967 | -0.13477 |

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| 860_RPA0863_CDS;__95 | -0.16725 | 0.01271 | 0.13201 | 0.05769 |
| 861_RPA0864_CDS;__96 | 0.11636 | 0.02030 | 0.00003 | -0.12177 |
| 862_RPA0865_CDS;__96 | -0.28232 | -0.03139 | -0.25349 | -0.05745 |
| 863_RPA0866_rnk;__9 | 0.09151 | 0.12831 | -0.07943 | -0.09686 |
| 864_RPA0867_CDS;__96 | -0.06061 | -0.19257 | -0.15123 | -0.00425 |
| 865_RPA0868_CDS;__96 | -0.22679 | 0.02410 | -0.03963 | 0.05377 |
| 866_RPA0869_CDS;__96 | 0.07632 | 0.15860 | -0.22029 | -0.00853 |
| 867_RPA0870_CDS;__96 | -0.31160 | 0.05996 | -0.15248 | -0.10283 |
| 868_RPA0871_CDS;__96 | -0.23886 | 0.00099 | -0.01132 | 0.06166 |
| 869_RPA0872_CDS;__96 | -0.22392 | 0.03807 | 0.07607 | 0.06549 |
| 870_RPA0873_CDS;__96 | -0.24164 | 0.06204 | -0.02208 | -0.03167 |
| 871_RPA0874_CDS;__96 | 0.08306 | -0.14732 | 0.02944 | -0.00524 |
| 872_RPA0875_hemZ;__9 | -0.18556 | 0.02561 | -0.01612 | 0.00534 |
| 873_RPA0876_CDS;__97 | -0.18564 | -0.04003 | -0.01101 | -0.12145 |
| 874_RPA0877_CDS;__97 | -0.00757 | -0.01770 | 0.09428 | 0.07051 |
| 875_RPA0878_CDS;__97 | 0.24335 | -0.06166 | -0.00794 | 0.03039 |
| 876_RPA0879_kpsF;__9 | -0.19227 | 0.08700 | -0.04928 | 0.03582 |
| 877_RPA0880_CDS;__97 | -0.10306 | -0.20756 | -0.04152 | -0.00491 |
| 878_RPA0881_CDS;__97 | 0.00725 | -0.23319 | -0.03418 | 0.04104 |
| 879_RPA0882_CDS;__97 | -0.23240 | -0.03703 | 0.21806 | 0.04836 |
| 880_RPA0883_CDS;__98 | -0.09761 | 0.08171 | -0.01472 | 0.08179 |
| 881_RPA0884_CDS;__98 | -0.15096 | 0.13360 | -0.09366 | 0.04904 |
| 882_RPA0885_CDS;__98 | -0.09828 | 0.12540 | -0.06152 | 0.07072 |
| 883_RPA0886_CDS;__98 | -0.15181 | 0.04115 | 0.08366 | -0.16288 |
| 884_RPA0887_exoN;__9 | -0.27311 | 0.07708 | -0.07492 | -0.00468 |
| 885_RPA0888_CDS;__98 | 0.00518 | 0.08826 | -0.06638 | 0.05949 |
| 886_RPA0889_hspD;__9 | -0.08332 | 0.01036 | -0.05851 | -0.03404 |
| 887_RPA0890_CDS;__98 | 0.01494 | -0.04885 | 0.10543 | 0.10516 |
| 888_RPA0891_gltB;__9 | -0.25872 | 0.00946 | -0.16186 | -0.07250 |
| 889_RPA0892_gltD;__9 | -0.20831 | -0.00946 | -0.12399 | -0.01133 |
| 890_RPA0893_CDS;__99 | 0.07302 | 0.10388 | -0.02971 | -0.14422 |
| 891_RPA0894_CDS;__99 | 0.12900 | 0.12712 | -0.01152 | -0.05352 |
| 892_RPA0895_CDS;__99 | -0.00395 | 0.13153 | -0.11024 | -0.07703 |
| 893_RPA0896_CDS;__99 | -0.17268 | 0.02600 | 0.08389 | -0.28120 |
| 894_RPA0897_CDS;__99 | -0.10056 | 0.01762 | -0.07690 | -0.01868 |
| 895_RPA0898_dapA;__1 | 0.10762 | 0.07625 | 0.14994 | 0.14690 |
| 896_RPA0899_CDS;__10 | -0.10367 | 0.08277 | 0.00374 | 0.08641 |
| 897_RPA0900_CDS;__10 | 0.02938 | 0.06338 | 0.04738 | 0.05611 |
| 898_RPA0901_CDS;__10 | -0.11011 | -0.05288 | 0.07526 | 0.01707 |
| 899_RPA0902_CDS;__10 | -0.05970 | 0.03518 | 0.00874 | -0.03874 |
| 900_RPA0903_CDS;__10 | 0.26440 | -0.18928 | 0.04927 | -0.09067 |
| 901_RPA0904_CDS;__10 | 0.00169 | -0.07768 | -0.09737 | 0.09062 |
| 902_RPA0905_CDS;__10 | 0.08482 | 0.17198 | -0.74135 | -0.40350 |
| 903_RPA0906_CDS;__10 | -0.16120 | 0.02899 | 0.10319 | -0.07368 |
| 904_RPA0907_CDS;__10 | -0.14756 | 0.04434 | -0.14856 | 0.09712 |
| 905_RPA0908_CDS;__10 | -0.23610 | -0.00112 | -0.09157 | -0.02099 |
| 906_RPA0909_wrbA;__ | -0.17083 | -0.02187 | -0.10800 | -0.03786 |
| 907_RPA0910_CDS;__10 | -0.10561 | 0.02892 | -0.03847 | -0.03861 |
| 908_RPA0911_CDS;__10 | -0.13615 | -0.01742 | 0.20033 | -0.01300 |
| 909_RPA0912_CDS;__10 | -0.01484 | 0.10613 | -0.03718 | -0.05565 |
| 910_RPA0913_CDS;__10 | 0.04417 | -0.06456 | -0.07294 | 0.09960 |
| 911_RPA0914_CDS;__10 | -0.24048 | 0.05383 | -0.00234 | 0.00268 |
| 912_RPA0915_CDS;__10 | -0.08256 | 0.04923 | 0.05245 | 0.06298 |
| 913_RPA0916_CDS;__10 | 0.32054 | 0.07259 | -0.20191 | 0.01537 |
| 914_RPA0917_CDS;__10 | -0.20268 | -0.03886 | 0.09508 | -0.02602 |
| 915_RPA0918_CDS;__10 | -0.31323 | -0.06269 | -0.10239 | -0.05858 |
| 916_RPA0919_CDS;__10 | -0.17401 | 0.02946 | 0.09871 | -0.03054 |

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| 917_RPA0920_CDS;__10 | -0.25566 | -0.00751 | 0.03106 | 0.02233 |
| 918_RPA0921_CDS;__10 | -0.22037 | -0.02949 | -0.00968 | 0.03107 |
| 919_RPA0922_CDS;__10 | -0.14826 | 0.02684 | 0.11001 | 0.08521 |
| 920_RPA0923_CDS;__10 | -0.11305 | 0.01370 | 0.10156 | 0.05325 |
| 921_RPA0924_CDS;__10 | -0.11850 | 0.04358 | 0.08378 | -0.11292 |
| 922_RPA0925_CDS;__10 | 0.43278 | 0.21527 | -0.54102 | -0.35514 |
| 923_RPA0926_CDS;__10 | -0.04692 | -0.05397 | -0.08339 | -0.10601 |
| 924_RPA0927_CDS;__10 | -0.08485 | -0.23575 | -0.00726 | 0.14164 |
| 925_RPA0928_CDS;__10 | -0.07122 | -0.00875 | 0.07200 | 0.08393 |
| 926_RPA0929_CDS;__10 | 0.09650 | -0.13587 | 0.07743 | -0.08830 |
| 927_RPA0930_CDS;__10 | -0.14463 | 0.03166 | 0.12316 | 0.11529 |
| 928_RPA0931_ubiD;__1 | -0.10238 | -0.15943 | 0.08209 | 0.02657 |
| 929_RPA0932_CDS;__10 | -0.02908 | 0.03736 | 0.05766 | 0.09205 |
| 930_RPA0933_CDS;__10 | -0.27572 | -0.03164 | -0.00657 | 0.01078 |
| 931_RPA0934_CDS;__10 | -0.23058 | 0.08058 | -0.08184 | 0.04705 |
| 932_RPA0935_CDS;__10 | 0.38529 | 0.03913 | -0.02829 | 0.11008 |
| 933_RPA0936_CDS;__10 | 0.42513 | 0.11004 | 0.06990 | 0.12370 |
| 934_RPA0937_CDS;__10 | -0.28633 | 0.08075 | -0.06355 | 0.00501 |
| 935_RPA0938_CDS;__10 | -0.05254 | 0.02839 | -0.12301 | 0.04980 |
| 936_RPA0939_CDS;__10 | -0.04524 | 0.01535 | 0.12049 | 0.06182 |
| 937_RPA0940_CDS;__10 | -0.22244 | -0.04048 | -0.15416 | -0.00776 |
| 938_RPA0941_CDS;__10 | 0.50119 | 0.10791 | -0.17141 | 0.06425 |
| 939_RPA0942_CDS;__10 | 0.07981 | 0.13946 | -0.08694 | 0.01708 |
| 940_RPA0943_cbbK;__1 | -0.33314 | 0.09026 | -0.18256 | -0.03717 |
| 941_RPA0944_cbbG;__1 | -0.30657 | 0.09728 | -0.22310 | -0.04522 |
| 942_RPA0945_cbbT2;__ | -0.14053 | 0.06643 | -0.01049 | 0.05163 |
| 943_RPA0946_CDS;__10 | 0.24125 | 0.03262 | -0.07613 | -0.01066 |
| 944_RPA0947_CDS;__10 | -0.17113 | 0.11310 | 0.00928 | 0.08053 |
| 945_RPA0948_CDS;__10 | -0.00792 | -0.17121 | 0.03699 | -0.03370 |
| 946_RPA0949_matE;__1 | -0.07754 | -0.12487 | -0.04274 | 0.07275 |
| 947_RPA0950_tly;__10 | -0.07440 | 0.03578 | 0.07498 | -0.00663 |
| 948_RPA0951_CDS;__10 | -0.06504 | -0.14366 | 0.12571 | 0.07108 |
| 949_RPA0952_dxs;__10 | -0.24734 | 0.09102 | -0.07567 | 0.00115 |
| 950_RPA0953_xseB;__1 | -0.08675 | -0.53822 | -0.12867 | 0.00208 |
| 951_RPA0954_CDS;__10 | -0.08053 | 0.07839 | -0.01681 | -0.01888 |
| 952_RPA0955_CDS;__10 | 0.02937 | 0.07371 | 0.08246 | 0.13373 |
| 953_RPA0956_CDS;__10 | -0.07772 | 0.03196 | 0.08763 | 0.02227 |
| 954_RPA0957_CDS;__10 | -0.07604 | 0.04123 | 0.09635 | 0.08439 |
| 955_RPA0958_CDS;__10 | -0.14882 | 0.08069 | -0.01601 | 0.04294 |
| 956_RPA0959_hupU;__1 | 0.00477 | 0.04566 | 0.16063 | 0.04283 |
| 957_RPA0962_hupS;__1 | -0.18472 | -0.03735 | 0.02520 | -0.08585 |
| 958_RPA0963_hupL;__1 | -0.28830 | 0.04367 | -0.01015 | 0.00707 |
| 959_RPA0964_hupC;__1 | -0.12732 | 0.01342 | 0.15856 | 0.04860 |
| 960_RPA0965_hupD;__1 | 0.15363 | 0.09467 | 0.03439 | 0.06953 |
| 961_RPA0966_hupE;__1 | -0.01816 | 0.02936 | 0.11471 | -0.15130 |
| 962_RPA0967_hupF;__1 | -0.17930 | -0.29359 | 0.06552 | 0.02517 |
| 963_RPA0968_hupG;__1 | 0.06635 | -0.48036 | 0.00119 | 0.17704 |
| 964_RPA0969_hupH;__1 | -0.02242 | 0.05958 | 0.05226 | -0.05693 |
| 965_RPA0970_hupI;__1 | 0.35896 | 0.35912 | -0.65086 | -0.13027 |
| 966_RPA0971_hupJ;__1 | 0.01287 | 0.06769 | 0.05951 | 0.04135 |
| 967_RPA0972_hupK;__1 | 0.14902 | -0.08513 | 0.04021 | 0.03909 |
| 968_RPA0973_hypA;__1 | -0.03117 | -0.20749 | 0.15816 | 0.04000 |
| 969_RPA0974_hypB;__ | 0.02518 | -0.15985 | 0.00285 | -0.04016 |
| 970_RPA0975_hypF;__ | 0.00919 | -0.11930 | 0.07528 | -0.04642 |
| 971_RPA0976_hypC;__1 | 0.15929 | -0.51216 | 0.09708 | 0.20420 |
| 972_RPA0977_hypD;__ | -0.07925 | -0.01211 | 0.06934 | -0.06326 |
| 973_RPA0978_hypE;__ | -0.09593 | -0.35893 | 0.05653 | 0.08856 |

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| 974_RPA0979_hoxA;__1 | -0.04760 | -0.02888 | 0.04781 | -0.08107 |
| 975_RPA0980_CDS;__10 | -0.00448 | -0.12512 | 0.04989 | -0.05062 |
| 976_RPA0981_CDS;__10 | -0.01126 | 0.03450 | 0.12730 | -0.04924 |
| 977_RPA0982_pcaR;__ | -0.09421 | -0.18312 | 0.15143 | 0.03667 |
| 978_RPA0983_CDS;__10 | -0.22654 | -0.00087 | -0.03214 | 0.02865 |
| 979_RPA0984_glnA4;__ | -0.12570 | 0.04795 | -0.00057 | 0.00752 |
| 980_RPA0985_CDS;__10 | -0.13874 | 0.08831 | -0.07999 | -0.05829 |
| 981_RPA0986_CDS;__10 | -0.07049 | -0.51860 | -0.12252 | 0.04720 |
| 982_RPA0987_CDS;__10 | -0.09442 | -0.08391 | -0.01235 | 0.02892 |
| 983_RPA0988_CDS;__10 | 0.00967 | -0.00965 | -0.06644 | 0.01523 |
| 984_RPA0989_CDS;__10 | 0.00456 | -0.49764 | -0.09889 | -0.12555 |
| 985_RPA0990_CDS;__10 | -0.04324 | -0.01607 | 0.02087 | 0.02287 |
| 986_RPA0991_CDS;__10 | 0.10175 | 0.01915 | 0.08414 | 0.00324 |
| 987_RPA0992_CDS;__10 | 0.04014 | 0.01049 | 0.19094 | 0.10233 |
| 988_RPA0993_CDS;__10 | 0.18105 | 0.09158 | 0.07968 | -0.08708 |
| 989_RPA0994_CDS;__10 | -0.07827 | -0.23911 | 0.06774 | 0.09034 |
| 990_RPA0995_CDS;__10 | -0.18293 | 0.08939 | -0.04865 | 0.03872 |
| 991_RPA0996_CDS;__11 | 0.16278 | 0.05897 | 0.19360 | 0.13463 |
| 992_RPA0997_CDS;__11 | 0.19208 | -0.20723 | -0.00604 | 0.07180 |
| 993_RPA0998_CDS;__11 | -0.06995 | 0.01420 | 0.09403 | -0.00558 |
| 994_RPA0999_PA5115;__ | -0.07385 | 0.06607 | -0.00234 | -0.01068 |
| 995_RPA1000_CDS;__11 | -0.18314 | 0.08228 | -0.10065 | 0.03333 |
| 996_RPA1001_CDS;__11 | 0.07786 | -0.01467 | 0.11723 | 0.01646 |
| 997_RPA1002_modD;__ | -0.10433 | 0.03867 | 0.06000 | 0.05755 |
| 998_RPA1003_CDS;__11 | -0.09868 | 0.06887 | 0.03410 | -0.00675 |
| 999_RPA1004_CDS;__11 | -0.00100 | -0.08925 | 0.03053 | 0.18564 |
| 1000_RPA1005_CDS;__1 | 0.13879 | 0.11073 | 0.02732 | 0.00265 |
| 1001_RPA1006_CDS;__1 | 0.08766 | 0.08889 | 0.12106 | -0.14844 |
| 1002_RPA1007_mhpB;__ | -0.13137 | 0.11355 | -0.09713 | 0.03879 |
| 1003_RPA1008_PA0248;__ | 0.04108 | 0.05539 | 0.13811 | -0.02225 |
| 1004_RPA1009_CDS;__1 | -0.20474 | 0.02110 | 0.08832 | 0.01910 |
| 1005_RPA1010_CDS;__1 | -0.08739 | 0.04734 | 0.14134 | -0.04583 |
| 1006_RPA1011_CDS;__1 | 0.03867 | -0.03305 | 0.17788 | -0.20237 |
| 1007_RPA1012_CDS;__1 | 0.04595 | -0.10351 | 0.20300 | 0.09965 |
| 1008_RPA1013_fixG;__ | -0.26094 | -0.01195 | -0.01607 | 0.01186 |
| 1009_RPA1014_CDS;__1 | 0.45826 | 0.10362 | 0.10721 | 0.20385 |
| 1010_RPA1015_CDS;__1 | 0.10322 | 0.06391 | 0.30594 | -0.32496 |
| 1011_RPA1016_petA;__ | -0.12723 | 0.11141 | -0.14731 | -0.02730 |
| 1012_RPA1017_CDS;__1 | -0.16538 | 0.02788 | 0.10647 | 0.05945 |
| 1013_RPA1018_CDS;__1 | 0.03267 | 0.08583 | -0.14610 | -0.31609 |
| 1014_RPA1019_CDS;__1 | 0.29774 | -0.54433 | 0.11535 | 0.00174 |
| 1015_RPA1020_CDS;__1 | -0.07985 | -0.04420 | 0.06388 | 0.03432 |
| 1016_RPA1021_CDS;__1 | -0.13816 | -0.02764 | -0.01918 | 0.00337 |
| 1017_RPA1022_CDS;__1 | -0.17334 | 0.05400 | -0.08300 | -0.00991 |
| 1018_RPA1023_CDS;__1 | 0.18096 | -0.06512 | 0.06222 | 0.09093 |
| 1019_RPA1024_CDS;__1 | 0.10138 | -0.03401 | 0.06779 | -0.05930 |
| 1020_RPA1025_CDS;__1 | -0.10105 | 0.05299 | 0.03093 | 0.01138 |
| 1021_RPA1026_CDS;__1 | 0.04320 | 0.12501 | -0.16965 | -0.04279 |
| 1022_RPA1027_CDS;__1 | -0.10496 | -0.18606 | -0.10179 | 0.01546 |
| 1023_RPA1028_moaB;__ | 0.03399 | 0.05302 | 0.14053 | 0.05818 |
| 1024_RPA1029_CDS;__1 | -0.04524 | 0.05445 | 0.12134 | -0.09973 |
| 1025_RPA1030_CDS;__1 | 0.06986 | -0.18832 | 0.01919 | -0.04360 |
| 1026_RPA1031_CDS;__1 | 0.10615 | 0.07341 | 0.19263 | 0.01887 |
| 1027_RPA1032_CDS;__1 | -0.09343 | 0.10051 | 0.02425 | 0.10031 |
| 1028_RPA1033_CDS;__1 | -0.09376 | 0.08041 | -0.00344 | 0.00573 |
| 1029_RPA1034_rnh2;__ | -0.02356 | -0.02163 | 0.00870 | -0.00791 |
| 1030_RPA1035_CDS;__1 | -0.04767 | 0.02274 | 0.13051 | -0.16429 |

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| 1031_RPA1036_polN;__ | -0.20798 | 0.07585 | 0.00721 | 0.07053 |
| 1032_RPA1037_CDS;__1 | -0.19276 | 0.01727 | -0.14730 | -0.07154 |
| 1033_RPA1038_CDS;__1 | -0.20534 | 0.09077 | -0.07894 | 0.01695 |
| 1034_RPA1039_ispE;__ | -0.11281 | -0.04350 | -0.00480 | -0.02409 |
| 1035_RPA1040_CDS;__1 | -0.23785 | 0.10356 | -0.15963 | -0.01940 |
| 1036_RPA1041_CDS;__1 | 0.10516 | -0.03817 | 0.12545 | 0.17857 |
| 1037_RPA1042_CDS;__1 | 0.15973 | 0.01751 | 0.20368 | -0.11202 |
| 1038_RPA1043_CDS;__1 | -0.08836 | 0.04854 | 0.00363 | 0.01614 |
| 1039_RPA1044_CDS;__1 | 0.54337 | 0.17156 | -0.20001 | -0.27840 |
| 1040_RPA1045_sygA;__ | -0.21235 | 0.05693 | 0.03936 | 0.04489 |
| 1041_RPA1046_CDS;__1 | 0.35931 | 0.13675 | 0.10211 | -0.02552 |
| 1042_RPA1047_sygB;__ | 0.17745 | -0.10457 | -0.04596 | 0.04751 |
| 1043_RPA1048_CDS;__1 | -0.24596 | -0.04706 | 0.04475 | -0.02759 |
| 1044_RPA1049_CDS;__1 | 0.02618 | 0.08439 | 0.00273 | -0.03357 |
| 1045_RPA1050_CDS;__1 | 0.51693 | 0.29654 | -0.57853 | -0.53311 |
| 1046_RPA1051_CDS;__1 | -0.32153 | 0.07612 | -0.09924 | -0.00824 |
| 1047_RPA1052_CDS;__1 | -0.12211 | -0.00708 | -0.17759 | -0.06237 |
| 1048_RPA1053_nadC;__ | -0.13554 | 0.09841 | -0.06295 | 0.04156 |
| 1049_RPA1054_nadB;__ | -0.08788 | 0.08054 | 0.02158 | 0.01666 |
| 1050_RPA1055_nadA;__ | -0.21823 | 0.00867 | -0.04654 | 0.04230 |
| 1051_RPA1056_CDS;__1 | -0.06982 | -0.06155 | -0.05969 | -0.03718 |
| 1052_RPA1057_CDS;__1 | 0.16920 | -0.04104 | -0.08141 | -0.02336 |
| 1053_RPA1058_CDS;__1 | 0.08832 | 0.08429 | 0.02088 | -0.03480 |
| 1054_RPA1059_CDS;__1 | 0.12397 | -0.44474 | -0.15127 | -0.03733 |
| 1055_RPA1060_CDS;__1 | 0.19038 | 0.06174 | 0.11720 | 0.11215 |
| 1056_RPA1061_tcmP;__ | 0.09241 | 0.06612 | 0.05595 | 0.01421 |
| 1057_RPA1062_CDS;__1 | -0.03056 | 0.05555 | 0.04563 | 0.00178 |
| 1058_RPA1063_CDS;__1 | -0.07589 | 0.01854 | -0.02779 | 0.06299 |
| 1059_RPA1064_CDS;__1 | -0.01519 | 0.04261 | 0.16057 | 0.05574 |
| 1060_RPA1065_CDS;__1 | -0.08200 | 0.09258 | -0.00131 | 0.11076 |
| 1061_RPA1066_CDS;__1 | 0.50433 | 0.09950 | 0.39182 | -0.10732 |
| 1062_RPA1067_tag;__ | -0.01103 | -0.16208 | -0.23108 | -0.02383 |
| 1063_RPA1068_CDS;__1 | -0.00127 | -0.27745 | -0.07917 | -0.06896 |
| 1064_RPA1069_pyrC;__ | -0.09549 | -0.13128 | -0.05908 | -0.01773 |
| 1065_RPA1070_CDS;__1 | 0.08189 | 0.01103 | -0.00993 | -0.00208 |
| 1066_RPA1071_CDS;__1 | 0.04228 | 0.13282 | 0.06420 | 0.15551 |
| 1067_RPA1072_CDS;__1 | 0.04383 | 0.08177 | 0.06267 | 0.16067 |
| 1068_RPA1073_CDS;__1 | -0.04780 | -0.04304 | 0.11410 | -0.11943 |
| 1069_RPA1074_CDS;__1 | 0.02031 | 0.17604 | -0.10210 | 0.20944 |
| 1070_RPA1075_CDS;__1 | 0.02793 | -0.22369 | -0.02104 | 0.08563 |
| 1071_RPA1076_CDS;__1 | -0.17781 | 0.04262 | -0.00843 | -0.00708 |
| 1072_RPA1077_CDS;__1 | 0.09190 | -0.03922 | -0.01133 | 0.00124 |
| 1073_RPA1078_CDS;__1 | -0.04199 | 0.01862 | 0.14218 | -0.06781 |
| 1074_RPA1079_CDS;__1 | -0.15120 | -0.06391 | -0.03010 | -0.07449 |
| 1075_RPA1080_CDS;__1 | 0.00950 | -0.24329 | 0.04036 | -0.15025 |
| 1076_RPA1081_CDS;__1 | 0.16921 | -0.05040 | -0.01239 | -0.07006 |
| 1077_RPA1082_CDS;__1 | 0.18073 | 0.11257 | -0.27689 | -0.18605 |
| 1078_RPA1083_CDS;__1 | 0.11767 | -0.14099 | -0.07219 | 0.10048 |
| 1079_RPA1084_csgB,_a | 0.34187 | 0.05088 | 0.09120 | 0.17471 |
| 1080_RPA1085_CDS;__1 | -0.16982 | -0.00750 | 0.09020 | -0.18897 |
| 1081_RPA1086_csgG;__ | -0.07385 | 0.06169 | 0.00399 | 0.00786 |
| 1082_RPA1087_CDS;__1 | 0.08466 | 0.10068 | 0.02352 | -0.16714 |
| 1083_RPA1088_CDS;__1 | 0.48125 | 0.16568 | 0.01917 | 0.13149 |
| 1084_RPA1089_CDS;__1 | 0.10811 | 0.08198 | -0.28685 | -0.05887 |
| 1085_RPA1090_CDS;__1 | 0.00085 | 0.05359 | 0.07071 | -0.00297 |
| 1086_RPA1091_CDS;__1 | 0.41765 | -0.22030 | -1.02216 | -0.32552 |
| 1087_RPA1092_CDS;__1 | -0.22965 | 0.04707 | -0.03248 | 0.02136 |

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| 1088_RPA1093_ribB;__ | -0.15998 | -0.02772 | -0.05391 | 0.03119 |
| 1089_RPA1094_CDS;__1 | -0.19946 | 0.08730 | -0.06053 | 0.00898 |
| 1090_RPA1095_CDS;__1 | -0.05209 | 0.06719 | 0.00671 | 0.02565 |
| 1091_RPA1096_CDS;__1 | -0.10819 | 0.06658 | 0.02974 | -0.01760 |
| 1092_RPA1097_CDS;__1 | -0.16259 | 0.06202 | -0.24340 | -0.01649 |
| 1093_RPA1098_CDS;__1 | 0.49830 | 0.10631 | -0.12169 | 0.06701 |
| 1094_RPA1099_ruvC;__ | -0.19234 | 0.00754 | 0.11445 | 0.00585 |
| 1095_RPA1100_ruvA;__ | -0.07087 | 0.02169 | 0.12986 | -0.07988 |
| 1096_RPA1101_CDS;__1 | 0.01344 | 0.07586 | 0.16301 | -0.28656 |
| 1097_RPA1102_ruvB;__ | -0.06904 | 0.08474 | -0.00921 | 0.05446 |
| 1098_RPA1103_CDS;__1 | 0.07685 | 0.03393 | -0.04112 | 0.10613 |
| 1099_RPA1104_ndh;__ | -0.08263 | -0.10691 | -0.07702 | -0.05816 |
| 1100_RPA1105_CDS;__1 | -0.02240 | -0.02579 | -0.05290 | 0.05300 |
| 1101_RPA1106_CDS;__1 | 0.01735 | 0.02636 | -0.07511 | 0.02200 |
| 1102_RPA1107_CDS;__1 | 0.05852 | 0.11404 | -0.11429 | 0.06193 |
| 1103_RPA1108_CDS;__1 | 0.14116 | -0.16117 | 0.00439 | 0.09122 |
| 1104_RPA1109_CDS;__1 | -0.01548 | -0.06414 | 0.05466 | -0.01690 |
| 1105_RPA1110_CDS;__1 | -0.02218 | -0.09271 | -0.07603 | -0.04332 |
| 1106_RPA1111_CDS;__1 | 0.69000 | 0.22207 | -0.21474 | -0.14852 |
| 1107_RPA1112_CDS;__1 | 0.03977 | 0.05036 | 0.05882 | -0.01514 |
| 1108_RPA1113_CDS;__1 | 0.04971 | 0.02606 | -0.05168 | 0.04575 |
| 1109_RPA1114_CDS;__1 | 0.14302 | 0.11005 | 0.11243 | -0.18340 |
| 1110_RPA1115_CDS;__1 | 0.09359 | -0.16041 | -0.03415 | 0.01336 |
| 1111_RPA1116_CDS;__1 | 0.13546 | 0.02921 | 0.16692 | -0.03962 |
| 1112_RPA1117_TolQ;__ | -0.10621 | -0.21082 | -0.13334 | -0.01428 |
| 1113_RPA1118_TolR;__ | -0.02276 | -0.22903 | -0.06478 | -0.15622 |
| 1114_RPA1119_TolA;__ | -0.08392 | 0.08440 | -0.10419 | -0.04880 |
| 1115_RPA1120_TolB;__ | -0.13863 | 0.04732 | 0.03142 | 0.05639 |
| 1116_RPA1121_CDS;__1 | 0.20074 | 0.04053 | 0.00129 | -0.07348 |
| 1117_RPA1122_CDS;__1 | 0.66645 | -0.27639 | 0.02645 | -0.03504 |
| 1118_RPA1123_CDS;__1 | -0.20250 | 0.08665 | -0.14391 | -0.09989 |
| 1119_RPA1124_CDS;__1 | 0.01123 | 0.09633 | -0.06810 | -0.03364 |
| 1120_RPA1125_CDS;__1 | 0.17863 | 0.09666 | -0.00049 | -0.13327 |
| 1121_RPA1126_ftsH;__ | -0.24612 | 0.09635 | -0.20680 | -0.08402 |
| 1122_RPA1127_CDS;__1 | 0.14940 | -0.50552 | -0.18007 | -0.03609 |
| 1123_RPA1128_CDS;__1 | 0.26062 | -0.01799 | 0.23336 | -0.34005 |
| 1124_RPA1129_CDS;__1 | 0.41013 | 0.07938 | -0.15456 | -0.29652 |
| 1125_RPA1130_glcD;__ | -0.05615 | -0.05384 | -0.01558 | 0.03766 |
| 1126_RPA1131_CDS;__1 | 0.00925 | 0.04316 | 0.13083 | 0.03753 |
| 1127_RPA1132_glcF;__ | 0.09981 | -0.09034 | 0.02066 | -0.03433 |
| 1128_RPA1133_CDS;__1 | 0.13941 | 0.05316 | -0.14146 | 0.07959 |
| 1129_RPA1134_CDS;__1 | -0.21086 | 0.11425 | -0.23225 | -0.10681 |
| 1130_RPA1135_CDS;__1 | -0.14857 | 0.03607 | 0.07822 | 0.01133 |
| 1131_RPA1136_ictP;__ | -0.06733 | -0.08341 | -0.03548 | 0.02533 |
| 1132_RPA1137_CDS;__1 | 0.00113 | -0.34263 | -0.04668 | -0.01996 |
| 1133_RPA1138_CDS;__1 | -0.04782 | 0.05544 | 0.07888 | 0.03307 |
| 1134_RPA1139_CDS;__1 | -0.20899 | 0.05812 | 0.03270 | 0.03273 |
| 1135_RPA1140_groEL;__ | -0.34595 | 0.02824 | -0.26006 | -0.08565 |
| 1136_RPA1141_groES;__ | -0.16049 | 0.05173 | -0.36484 | -0.20037 |
| 1137_RPA1142_CDS;__1 | -0.09312 | 0.06445 | -0.02216 | 0.03089 |
| 1138_RPA1143_CDS;__1 | 0.01205 | -0.05678 | 0.09078 | -0.06745 |
| 1139_RPA1144_CDS;__1 | -0.06960 | 0.12686 | -0.11734 | 0.02731 |
| 1140_RPA1145_CDS;__1 | -0.00783 | -0.18564 | -0.14717 | -0.11510 |
| 1141_RPA1146_CDS;__1 | 0.03444 | 0.00600 | -0.00775 | -0.12521 |
| 1142_RPA1147_CDS;__1 | -0.06466 | 0.04851 | 0.11279 | 0.04464 |
| 1143_RPA1148_CDS;__1 | -0.16598 | 0.00969 | 0.16505 | 0.03401 |
| 1144_RPA1149_hisG;__ | -0.23664 | -0.21849 | -0.03943 | 0.04462 |

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| 1145_RPA1150_CDS;__1 | -0.14355 | 0.08857 | 0.01914 | 0.01146 |
| 1146_RPA1151_CDS;__1 | -0.01855 | 0.04235 | 0.23437 | 0.11771 |
| 1147_RPA1152_CDS;__1 | -0.09456 | 0.10481 | 0.04909 | 0.02350 |
| 1148_RPA1153_ubiA;__ | -0.08261 | 0.01809 | 0.12720 | -0.11663 |
| 1149_RPA1154_CDS;__1 | 0.32752 | -0.08916 | -0.01407 | 0.07383 |
| 1150_RPA1155_CDS;__1 | -0.02815 | 0.07844 | -0.04655 | -0.00387 |
| 1151_RPA1156_CDS;__1 | 0.15460 | 0.13954 | -0.15750 | -0.05032 |
| 1152_RPA1157_CDS;__1 | 0.28671 | -0.01982 | 0.16099 | 0.15083 |
| 1153_RPA1158_CDS;__1 | -0.02884 | -0.48937 | -0.15872 | -0.00319 |
| 1154_RPA1159_lpxK;__ | 0.10794 | -0.23420 | 0.10176 | -0.02105 |
| 1155_RPA1160_CDS;__1 | 0.22078 | -0.12141 | -0.16489 | 0.10236 |
| 1156_RPA1161_xseA;__ | 0.01010 | 0.05320 | 0.14226 | 0.02918 |
| 1157_RPA1162_garS;__ | -0.18170 | 0.02577 | 0.09610 | -0.05633 |
| 1158_RPA1163_CDS;__1 | -0.01974 | 0.07626 | -0.00333 | 0.05386 |
| 1159_RPA1164_CDS;__1 | -0.18496 | 0.05728 | 0.05981 | 0.12953 |
| 1160_RPA1165_CDS;__1 | -0.08378 | 0.08381 | 0.01810 | -0.18402 |
| 1161_RPA1166_CDS;__1 | 0.04755 | -0.05378 | 0.07859 | -0.18564 |
| 1162_RPA1167_yfcB;__ | -0.11008 | 0.10807 | -0.04254 | 0.08329 |
| 1163_RPA1168_moaE;__ | -0.21515 | 0.02198 | 0.06100 | 0.03658 |
| 1164_RPA1169_moaD;__ | -0.19112 | -0.05099 | 0.07557 | 0.00650 |
| 1165_RPA1170_pgsA;__ | -0.07535 | 0.05853 | 0.06528 | 0.16962 |
| 1166_RPA1171_uvrC;__ | -0.13177 | 0.06803 | 0.01627 | 0.05353 |
| 1167_RPA1172_CDS;__1 | -0.04641 | 0.12099 | -0.03756 | -0.12281 |
| 1168_RPA1173_CDS;__1 | 0.29886 | 0.03006 | -0.10086 | 0.07918 |
| 1169_RPA1174_CDS;__1 | -0.10771 | 0.09679 | 0.01472 | 0.08707 |
| 1170_RPA1175_cheY4;__ | -0.14505 | -0.00376 | -0.17687 | -0.10920 |
| 1171_RPA1176_CDS;__1 | -0.13507 | -0.05137 | 0.13280 | 0.06915 |
| 1172_RPA1177_CDS;__1 | -0.24707 | 0.00665 | -0.03888 | -0.01877 |
| 1173_RPA1178_CDS;__1 | 0.01641 | 0.09588 | -0.00098 | -0.04659 |
| 1174_RPA1179_CDS;__1 | -0.20529 | 0.08555 | -0.10313 | -0.02956 |
| 1175_RPA1180_CDS;__1 | 0.06494 | -0.18093 | -0.13016 | 0.04377 |
| 1176_RPA1181_CDS;__1 | -0.23336 | 0.00194 | 0.02706 | -0.02824 |
| 1177_RPA1182_CDS;__1 | -0.21167 | -0.04684 | 0.02939 | 0.03557 |
| 1178_RPA1183_CDS;__1 | -0.11162 | 0.00066 | -0.00145 | -0.01590 |
| 1179_RPA1184_CDS;__1 | -0.06292 | -0.00103 | 0.01351 | 0.00952 |
| 1180_RPA1185_CDS;__1 | -0.01521 | 0.02351 | -0.07628 | -0.03450 |
| 1181_RPA1186_CDS;__1 | 0.17778 | -0.20632 | 0.06512 | -0.07209 |
| 1182_RPA1187_CDS;__1 | 0.11156 | 0.02981 | 0.22249 | -0.17429 |
| 1183_RPA1188_CDS;__1 | -0.09560 | 0.03952 | 0.01426 | -0.01412 |
| 1184_RPA1189_CDS;__1 | -0.15545 | -0.47207 | -0.20430 | 0.15951 |
| 1185_RPA1190_CDS;__1 | 0.02120 | 0.05238 | 0.21455 | -0.19535 |
| 1186_RPA1191_CDS;__1 | 0.46978 | -0.03730 | -0.04651 | -0.11912 |
| 1187_RPA1192_CDS;__1 | -0.00534 | 0.13163 | -0.17610 | -0.06422 |
| 1188_RPA1193_CDS;__1 | -0.25399 | 0.09899 | -0.18417 | -0.12594 |
| 1189_RPA1194_CDS;__1 | 0.02540 | 0.06487 | 0.10290 | -0.06932 |
| 1190_RPA1195_fixR;__ | -0.15646 | 0.06961 | -0.02996 | -0.00608 |
| 1191_RPA1196_pdxH;__ | 0.14961 | -0.03129 | 0.22237 | -0.14361 |
| 1192_RPA1197_CDS;__1 | -0.06335 | 0.00999 | 0.20183 | 0.07278 |
| 1193_RPA1198_CDS;__1 | -0.10186 | -0.01361 | 0.03151 | 0.03110 |
| 1194_RPA1199_CDS;__1 | -0.15006 | 0.11670 | -0.14382 | -0.08485 |
| 1195_RPA1200_CDS;__1 | -0.20891 | -0.03402 | 0.10657 | 0.06687 |
| 1196_RPA1201_aroC;__ | -0.21525 | 0.03576 | 0.05748 | -0.01659 |
| 1197_RPA1202_CDS;__1 | -0.11590 | 0.07689 | 0.06919 | 0.01919 |
| 1198_RPA1203_CDS;__1 | -0.26992 | 0.00661 | 0.01647 | -0.03544 |
| 1199_RPA1204_CDS;__1 | -0.05127 | 0.08320 | -0.00902 | 0.06702 |
| 1200_RPA1205_CDS;__1 | -0.11387 | 0.03851 | 0.09308 | -0.09306 |
| 1201_RPA1206_CDS;__1 | -0.07010 | -0.06434 | -0.00363 | 0.08024 |

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| 1202_RPA1207_CDS;__1 | 0.09110 | 0.07304 | 0.04384 | -0.17775 |
| 1203_RPA1208_CDS;__1 | -0.08736 | -0.00345 | 0.03868 | -0.05836 |
| 1204_RPA1209_CDS;__1 | -0.05240 | -0.19440 | -0.06006 | 0.09526 |
| 1205_RPA1210_CDS;__1 | -0.08031 | -0.02974 | 0.09392 | 0.08973 |
| 1206_RPA1211_CDS;__1 | -0.07569 | -0.02891 | 0.05746 | 0.07746 |
| 1207_RPA1212_CDS;__1 | 0.01696 | 0.03121 | -0.12012 | -0.14206 |
| 1208_RPA1213_CDS;__1 | -0.10839 | -0.03516 | -0.04906 | -0.05254 |
| 1209_RPA1214_CDS;__1 | -0.13148 | 0.03708 | 0.07441 | -0.00203 |
| 1210_RPA1215_CDS;__1 | -0.18540 | 0.04149 | 0.04651 | -0.01994 |
| 1211_RPA1216_CDS;__1 | -0.09409 | 0.00664 | -0.05546 | 0.01971 |
| 1212_RPA1217_CDS;__1 | -0.01529 | -0.11629 | -0.02457 | 0.01300 |
| 1213_RPA1218_CDS;__1 | -0.19246 | -0.09479 | -0.14545 | 0.00175 |
| 1214_RPA1219_CDS;__1 | 0.03208 | 0.17223 | -0.23683 | -0.08454 |
| 1215_RPA1220_CDS;__1 | -0.09133 | 0.08569 | -0.00766 | 0.03161 |
| 1216_RPA1221_CDS;__1 | -0.12965 | -0.04107 | 0.09817 | -0.02902 |
| 1217_RPA1222_CDS;__1 | 0.09549 | 0.10292 | -0.00235 | 0.05994 |
| 1218_RPA1223_CDS;__1 | -0.05194 | 0.00102 | 0.22257 | 0.07837 |
| 1219_RPA1224_iorA;__ | -0.02198 | -0.00463 | -0.07280 | -0.11284 |
| 1220_RPA1225_CDS;__1 | -0.08944 | -0.03882 | -0.01263 | -0.01824 |
| 1221_RPA1226_CDS;__1 | -0.12503 | 0.05559 | -0.00915 | -0.01844 |
| 1222_RPA1227_oorB;__ | -0.18030 | -0.00976 | -0.01848 | 0.02255 |
| 1223_RPA1228_CDS;__1 | -0.09577 | -0.07454 | -0.19866 | -0.02321 |
| 1224_RPA1229_CDS;__1 | -0.17264 | 0.05519 | -0.00532 | 0.03219 |
| 1225_RPA1230_CDS;__1 | -0.17144 | -0.10952 | 0.13378 | -0.03986 |
| 1226_RPA1231_CDS;__1 | -0.05033 | 0.08202 | 0.03511 | 0.09861 |
| 1227_RPA1232_CDS;__1 | -0.01732 | 0.07941 | 0.07240 | 0.01908 |
| 1228_RPA1233_CDS;__1 | -0.07712 | 0.04194 | 0.09999 | 0.04246 |
| 1229_RPA1234_CDS;__1 | -0.02239 | -0.05887 | 0.10281 | -0.01781 |
| 1230_RPA1235_CDS;__1 | -0.17146 | -0.20730 | -0.05989 | 0.01060 |
| 1231_RPA1236_CDS;__1 | -0.24382 | 0.02422 | 0.04212 | 0.01582 |
| 1232_RPA1237_CDS;__1 | -0.07541 | 0.02333 | 0.13552 | -0.02030 |
| 1233_RPA1238_CDS;__1 | 0.03916 | -0.01873 | 0.00602 | 0.08589 |
| 1234_RPA1239_exbB;__ | 0.06970 | -0.19600 | -0.00789 | 0.06822 |
| 1235_RPA1240_exbD;__ | 0.03697 | -0.10973 | 0.21805 | -0.00367 |
| 1236_RPA1241_CDS;__1 | 0.02701 | -0.04085 | 0.08004 | -0.03486 |
| 1237_RPA1242_fadD5;__ | 0.00377 | 0.03834 | 0.16744 | 0.09005 |
| 1238_RPA1243_CDS;__1 | 0.19770 | 0.06182 | -0.13259 | -0.15627 |
| 1239_RPA1244_CDS;__1 | 0.05760 | 0.07873 | -0.17243 | -0.00405 |
| 1240_RPA1245_CDS;__1 | 0.34620 | 0.09094 | 0.05663 | 0.06574 |
| 1241_RPA1246_CDS;__1 | 0.14618 | 0.05593 | -0.12773 | -0.01211 |
| 1242_RPA1247_rbn;__1 | 0.38899 | 0.04669 | 0.08763 | 0.07455 |
| 1243_RPA1248_CDS;__1 | -0.18667 | 0.06766 | 0.05632 | 0.07733 |
| 1244_RPA1249_CDS;__1 | -0.09430 | 0.01409 | 0.06630 | 0.04080 |
| 1245_RPA1250_CDS;__1 | -0.17820 | 0.10616 | -0.16128 | -0.08270 |
| 1246_RPA1251_CDS;__1 | -0.21563 | 0.09141 | -0.13380 | -0.01584 |
| 1247_RPA1252_CDS;__1 | -0.09497 | 0.08915 | -0.03998 | -0.10969 |
| 1248_RPA1253_CDS;__1 | -0.08701 | 0.10700 | -0.06505 | 0.08390 |
| 1249_RPA1254_CDS;__1 | -0.02770 | 0.02525 | -0.06138 | 0.04960 |
| 1250_RPA1255_fmdA;__ | -0.22188 | 0.11377 | -0.24280 | -0.10934 |
| 1251_RPA1256_fmdB;__ | -0.03456 | -0.00181 | 0.06015 | 0.09716 |
| 1252_RPA1257_cobS;__ | -0.02720 | 0.01384 | 0.14613 | 0.03909 |
| 1253_RPA1258_CDS;__1 | 0.28483 | 0.10150 | 0.17648 | 0.13623 |
| 1254_RPA1259_CDS;__1 | -0.11306 | 0.07746 | -0.01709 | 0.01179 |
| 1255_RPA1260_CDS;__1 | 0.07077 | -0.10300 | 0.04150 | -0.03845 |
| 1256_RPA1261_CDS;__1 | -0.06638 | 0.04660 | 0.06120 | -0.01615 |
| 1257_RPA1262_CDS;__1 | 0.19022 | -0.01100 | 0.18752 | -0.00189 |
| 1258_RPA1263_II.1;__ | 0.20274 | 0.15070 | 0.03264 | 0.20760 |

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| 1259_RPA1264_fliF;__ | -0.19531 | -0.01482 | -0.02169 | 0.04616 |
| 1260_RPA1265_fliG;__ | -0.15717 | 0.02726 | -0.09821 | -0.05282 |
| 1261_RPA1266_CDS;__1 | -0.02003 | -0.10378 | 0.00068 | 0.03186 |
| 1262_RPA1267_fliY;__ | -0.14563 | -0.01318 | -0.11788 | -0.00039 |
| 1263_RPA1268_flbD;__ | -0.17430 | 0.08861 | -0.02820 | 0.00487 |
| 1264_RPA1269_CDS;__1 | -0.05700 | 0.01223 | 0.16834 | -0.04548 |
| 1265_RPA1270_CDS;__1 | 0.20832 | 0.08660 | 0.27617 | -0.10491 |
| 1266_RPA1271_CDS;__1 | 0.33298 | -0.02916 | 0.00848 | 0.21356 |
| 1267_RPA1272_CDS;__1 | -0.05783 | -0.03363 | 0.15280 | -0.25491 |
| 1268_RPA1273_CDS;__1 | -0.16780 | -0.08271 | 0.05109 | -0.04625 |
| 1269_RPA1274_CDS;__1 | 0.24714 | -0.03809 | -0.07185 | -0.09682 |
| 1270_RPA1275_CDS;__1 | 0.13324 | 0.03565 | 0.12733 | 0.05141 |
| 1271_RPA1276_carA;__ | -0.20613 | 0.05491 | -0.04943 | -0.01548 |
| 1272_RPA1277_CDS;__1 | -0.00330 | -0.13541 | 0.01683 | 0.06334 |
| 1273_RPA1278_CDS;__1 | -0.13426 | -0.03409 | 0.01581 | 0.04158 |
| 1274_RPA1279_CDS;__1 | 0.74393 | -0.34526 | -0.28991 | -0.14547 |
| 1275_RPA1280_CDS;__1 | 0.10793 | -0.30025 | -0.04703 | 0.03120 |
| 1276_RPA1281_CDS;__1 | 0.04223 | 0.08758 | 0.07665 | -0.03016 |
| 1277_RPA1282_CDS;__1 | -0.01330 | 0.02405 | 0.18018 | 0.04688 |
| 1278_RPA1283_CDS;__1 | -0.02711 | 0.08300 | -0.05636 | -0.00101 |
| 1279_RPA1284_CDS;__1 | -0.06894 | 0.02400 | 0.18643 | 0.02084 |
| 1280_RPA1285_CDS;__1 | -0.02009 | -0.02832 | 0.18308 | 0.09059 |
| 1281_RPA1286_CDS;__1 | -0.00967 | -0.12718 | 0.24048 | 0.12689 |
| 1282_RPA1287_dnaG;__ | -0.03680 | 0.03995 | 0.06685 | 0.00888 |
| 1283_RPA1288_CDS;__1 | -0.29350 | 0.09950 | -0.14063 | -0.01543 |
| 1284_RPA1289_CDS;__1 | 0.49907 | 0.21225 | -0.23688 | -0.30704 |
| 1285_RPA1290_CDS;__1 | -0.05897 | 0.06884 | -0.11599 | 0.16528 |
| 1286_RPA1291_CDS;__1 | 0.40666 | 0.02560 | 0.28073 | -0.26127 |
| 1287_RPA1292_CDS;__1 | -0.13982 | -0.00210 | -0.14882 | 0.02469 |
| 1288_RPA1293_CDS;__1 | 0.32697 | 0.13295 | 0.08043 | 0.02393 |
| 1289_RPA1294_CDS;__1 | 1.18654 | -0.10988 | -0.18641 | 0.09578 |
| 1290_RPA1295_CDS;__1 | 0.06254 | 0.07018 | 0.10206 | 0.10827 |
| 1291_RPA1296_CDS;__1 | -0.10877 | 0.06020 | 0.05928 | -0.08617 |
| 1292_RPA1297_CDS;__1 | -0.21360 | 0.05290 | 0.07401 | 0.05277 |
| 1293_RPA1298_CDS;__1 | -0.27152 | 0.07023 | -0.07351 | -0.03579 |
| 1294_RPA1299_CDS;__1 | -0.11440 | 0.08118 | 0.12447 | -0.09623 |
| 1295_RPA1300_CDS;__1 | 0.57435 | 0.17696 | -0.01492 | 0.01348 |
| 1296_RPA1301_pfpI;__ | -0.11133 | 0.10000 | -0.12891 | -0.01255 |
| 1297_RPA1302_CDS;__1 | -0.05161 | -0.06867 | 0.21489 | -0.18280 |
| 1298_RPA1303_CDS;__1 | -0.18704 | 0.06176 | 0.01353 | 0.05080 |
| 1299_RPA1304_CDS;__1 | -0.16867 | -0.01930 | 0.06513 | 0.08290 |
| 1300_RPA1305_CDS;__1 | -0.08183 | 0.02307 | -0.07411 | -0.02138 |
| 1301_RPA1306_trmU;__ | -0.15066 | 0.05063 | 0.04519 | -0.04349 |
| 1302_RPA1307_CDS;__1 | -0.11144 | 0.00304 | 0.14255 | 0.04996 |
| 1303_RPA1308_CDS;__1 | 0.23447 | 0.10233 | 0.15098 | -0.31300 |
| 1304_RPA1309_CDS;__1 | 0.59515 | 0.14679 | 0.29039 | -0.19574 |
| 1305_RPA1310_CDS;__1 | 0.38796 | -0.13220 | -0.14781 | -0.14677 |
| 1306_RPA1311_CDS;__1 | 0.24355 | 0.08922 | -0.16193 | -0.03533 |
| 1307_RPA1312_CDS;__1 | -0.08237 | 0.09237 | -0.11056 | -0.19004 |
| 1308_RPA1313_CDS;__1 | 0.14870 | -0.08077 | -0.02944 | -0.02453 |
| 1309_RPA1314_CDS;__1 | 0.08225 | 0.03760 | 0.12848 | 0.08443 |
| 1310_RPA1315_CDS;__1 | 0.18872 | 0.08086 | 0.07342 | 0.00804 |
| 1311_RPA1316_CDS;__1 | 0.77918 | 0.18587 | 0.02040 | 0.08210 |
| 1312_RPA1319_cioB;__ | -0.03589 | -0.07277 | 0.02714 | 0.00809 |
| 1313_RPA1320_CDS;__1 | 0.25212 | -0.12429 | -0.10900 | 0.10808 |
| 1314_RPA1321_CDS;__1 | 0.20684 | -0.17529 | -0.02439 | -0.01199 |
| 1315_RPA1322_CDS;__1 | 0.49028 | -0.12225 | -0.09538 | -0.01269 |

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| 1316_RPA1323_CDS;__1 | -0.15561 | 0.04803 | -0.01419 | 0.00662 |
| 1317_RPA1324_CDS;__1 | 0.15604 | -0.02526 | 0.07141 | -0.06866 |
| 1318_RPA4837_CDS;__1 | 0.09728 | -0.09047 | 0.19923 | 0.07207 |
| 1319_RPA1325_CDS;__1 | 0.05867 | -0.03131 | 0.07908 | -0.05001 |
| 1320_RPA1326_CDS;__1 | 0.33987 | 0.14133 | 0.10215 | 0.12476 |
| 1321_RPA1327_CDS;__1 | 0.47362 | -0.22417 | -0.07062 | 0.07186 |
| 1322_RPA1328_CDS;__1 | 0.17685 | 0.00923 | 0.03968 | -0.02982 |
| 1323_RPA1329_fumC;__ | -0.11013 | -0.02449 | -0.04625 | 0.02627 |
| 1324_RPA1330_CDS;__1 | 0.11002 | -0.08825 | -0.05798 | -0.08156 |
| 1325_RPA1331_mqoB;__ | -0.18891 | -0.02976 | 0.05805 | 0.02290 |
| 1326_RPA1332_CDS;__1 | 0.60433 | 0.10231 | 0.23849 | -0.00435 |
| 1327_RPA1333_CDS;__1 | 0.25758 | 0.06669 | 0.04260 | -0.11633 |
| 1328_RPA1334_CDS;__1 | 0.00340 | 0.05998 | 0.02267 | 0.02957 |
| 1329_RPA1335_CDS;__1 | 0.15290 | -0.29439 | -0.09387 | 0.00558 |
| 1330_RPA1336_CDS;__1 | 0.08183 | -0.20052 | -0.00483 | -0.01401 |
| 1331_RPA1337_CDS;__1 | 0.01671 | -0.01617 | 0.07000 | 0.01730 |
| 1332_RPA1338_CDS;__1 | 0.26139 | -0.05683 | -0.11293 | 0.02865 |
| 1333_RPA1339_CDS;__1 | 0.18876 | 0.03680 | 0.18940 | -0.25131 |
| 1334_RPA1340_CDS;__1 | 0.00911 | 0.08001 | 0.04583 | 0.08481 |
| 1335_RPA1341_CDS;__1 | -0.09515 | 0.05791 | 0.08795 | -0.01859 |
| 1336_RPA1342_CDS;__1 | 0.73220 | -0.40427 | -0.12144 | 0.21898 |
| 1337_RPA1343_CDS;__1 | 0.48767 | -0.36162 | -0.24026 | -0.05630 |
| 1338_RPA1344_CDS;__1 | 0.25788 | 0.07590 | 0.11423 | -0.19509 |
| 1339_RPA1345_CDS;__1 | 0.48410 | 0.02164 | 0.09925 | -0.03594 |
| 1340_RPA1346_CDS;__1 | 0.21662 | 0.00178 | 0.00402 | 0.05479 |
| 1341_RPA1347_CDS;__1 | 0.21655 | 0.07352 | 0.13739 | -0.19938 |
| 1342_RPA1348_CDS;__1 | 0.11923 | 0.08657 | 0.03871 | -0.02202 |
| 1343_RPA1349_CDS;__1 | 0.07726 | -0.27684 | -0.08942 | -0.01943 |
| 1344_RPA1350_exbB2;__ | -0.05356 | 0.09508 | -0.06403 | -0.04475 |
| 1345_RPA1351_exbD;__ | 0.01511 | 0.04913 | -0.06096 | -0.31584 |
| 1346_RPA1352_CDS;__1 | -0.03700 | 0.03332 | 0.10502 | 0.06252 |
| 1347_RPA1353_CDS;__1 | -0.09020 | -0.00827 | 0.02729 | 0.03851 |
| 1348_RPA1354_CDS;__1 | -0.20349 | 0.08922 | -0.08644 | -0.00194 |
| 1349_RPA1355_CDS;__1 | 0.28712 | 0.14494 | 0.02152 | 0.11038 |
| 1350_RPA1356_CDS;__1 | 0.01026 | 0.11126 | -0.00301 | -0.01298 |
| 1351_RPA1357_CDS;__1 | 0.04430 | -0.01969 | 0.01604 | -0.03031 |
| 1352_RPA1358_CDS;__1 | 0.28303 | 0.05468 | -0.01528 | 0.09749 |
| 1353_RPA1359_CDS;__1 | 0.35309 | 0.08252 | -0.10974 | 0.12759 |
| 1354_RPA1360_CDS;__1 | 0.30178 | 0.14501 | -0.06034 | -0.13809 |
| 1355_RPA1361_CDS;__1 | 0.52052 | 0.10073 | 0.21155 | -0.78376 |
| 1356_RPA1362_CDS;__1 | 0.11358 | 0.08699 | -0.00489 | -0.00612 |
| 1357_RPA1363_CDS;__1 | 0.18758 | 0.09068 | 0.08823 | -0.20309 |
| 1358_RPA1364_CDS;__1 | 0.14400 | 0.11552 | 0.04845 | 0.13354 |
| 1359_RPA1365_CDS;__1 | -0.01305 | -0.15756 | -0.03821 | 0.07049 |
| 1360_RPA1366_soxZ;__ | 0.27173 | 0.11668 | -0.08276 | 0.19401 |
| 1361_RPA1367_soxY;__ | 0.05176 | 0.10937 | -0.00498 | 0.06862 |
| 1362_RPA1368_CDS;__1 | 0.21649 | 0.15067 | -0.06132 | 0.13296 |
| 1363_RPA1369_CDS;__1 | 0.40808 | 0.15743 | 0.00208 | -0.03924 |
| 1364_RPA1370_CDS;__1 | 0.13544 | 0.09550 | 0.01009 | 0.00731 |
| 1365_RPA1371_vnfX;__ | 0.10668 | 0.13394 | -0.02923 | 0.12499 |
| 1366_RPA1372_vnfN;__ | -0.03472 | 0.07999 | 0.04318 | 0.08636 |
| 1367_RPA1373_vnfE;__ | 0.08961 | 0.12777 | -0.22130 | 0.10058 |
| 1368_RPA1374_vnfA;__ | -0.08634 | 0.06803 | 0.07630 | -0.09678 |
| 1369_RPA1375_CDS;__1 | 0.11957 | 0.11233 | 0.00417 | 0.14588 |
| 1370_RPA1376_vnfH;__ | -0.16511 | 0.05669 | -0.30269 | 0.00765 |
| 1371_RPA1377_CDS;__1 | 0.03002 | 0.08819 | 0.00746 | 0.04156 |
| 1372_RPA1378_vnfD;__ | -0.14164 | 0.05389 | -0.17101 | 0.02734 |

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| 1373_RPA1379_vnfG;__ | -0.09352 | 0.09209 | -0.04466 | 0.06043 |
| 1374_RPA1380_vnfK;__ | -0.17390 | 0.04512 | 0.02167 | -0.09594 |
| 1375_RPA1381_CDS;__1 | 0.10789 | 0.07043 | 0.03941 | 0.00709 |
| 1376_RPA1382_CDS;__1 | -0.06712 | 0.04035 | 0.12006 | 0.05740 |
| 1377_RPA1383_ModE/Mo | 0.11993 | -0.20223 | -0.07339 | 0.01106 |
| 1378_RPA1384_ptxC;__ | 0.03169 | -0.03517 | 0.17442 | 0.04468 |
| 1379_RPA1385_ptxB;__ | 0.09813 | 0.01194 | -0.00791 | 0.08274 |
| 1380_RPA1386_ptxA;__ | 0.21965 | -0.46064 | -0.11048 | 0.04437 |
| 1381_RPA1387_CDS;__1 | 0.19786 | 0.13546 | -0.04047 | 0.01472 |
| 1382_RPA1388_CDS;__1 | 0.13160 | -0.03890 | 0.06707 | 0.01624 |
| 1383_RPA1389_CDS;__1 | 0.10649 | -0.06231 | -0.04330 | 0.03703 |
| 1384_RPA1390_CDS;__1 | 0.22320 | -0.20684 | -0.13020 | 0.01893 |
| 1385_RPA1391_CDS;__1 | 0.11955 | -0.05030 | 0.06106 | -0.00030 |
| 1386_RPA1392_CDS;__1 | 0.49967 | -0.38679 | -0.12475 | 0.08279 |
| 1387_RPA1393_CDS;__1 | 0.36609 | -0.03597 | -0.10602 | 0.12720 |
| 1388_RPA1394_CDS;__1 | 0.33887 | 0.01122 | -0.10270 | -0.00128 |
| 1389_RPA1395_CDS;__1 | 0.06545 | 0.06335 | 0.01513 | 0.01609 |
| 1390_RPA1396_CDS;__1 | 0.30429 | -0.46551 | -0.01870 | 0.04252 |
| 1391_RPA1397_CDS;__1 | 0.26601 | 0.04229 | -0.00685 | 0.06257 |
| 1392_RPA1398_CDS;__1 | 0.11737 | 0.07332 | -0.00960 | -0.06918 |
| 1393_RPA1399_CDS;__1 | 0.24064 | 0.02324 | 0.10178 | -0.07724 |
| 1394_RPA1400_CDS;__1 | 0.43996 | -0.03973 | -0.03492 | -0.01107 |
| 1395_RPA1401_glnAIII | 0.02905 | 0.08964 | -0.02963 | -0.18322 |
| 1396_RPA1402_CDS;__1 | 0.33253 | -0.13307 | 0.05790 | 0.02540 |
| 1397_RPA1403_CDS;__1 | 0.42668 | 0.09472 | 0.13348 | -0.07681 |
| 1398_RPA1404_CDS;__1 | 0.10484 | 0.09119 | 0.08579 | 0.01731 |
| 1399_RPA1405_CDS;__1 | -0.06245 | 0.02739 | 0.03105 | -0.03287 |
| 1400_RPA1406_CDS;__1 | -0.19442 | 0.00099 | -0.02024 | 0.08097 |
| 1401_RPA1407_CDS;__1 | -0.05510 | -0.07446 | -0.11210 | -0.22965 |
| 1402_RPA1408_CDS;__1 | -0.01932 | 0.06994 | 0.11573 | -0.08544 |
| 1403_RPA1409_CDS;__1 | 0.02978 | 0.04587 | 0.15637 | 0.17471 |
| 1404_RPA1410_CDS;__1 | -0.13293 | 0.07559 | -0.25282 | -0.05614 |
| 1405_RPA1411_CDS;__1 | 0.01498 | -0.10684 | -0.03208 | -0.01318 |
| 1406_RPA1412_CDS;__1 | 0.09184 | 0.06819 | 0.07281 | -0.04750 |
| 1407_RPA1413_CDS;__1 | -0.03556 | 0.06211 | 0.06003 | 0.06476 |
| 1408_RPA1414_CDS;__1 | -0.01533 | 0.05313 | -0.00841 | 0.00492 |
| 1409_RPA1415_CDS;__1 | -0.09146 | 0.07137 | -0.03169 | -0.05916 |
| 1410_RPA1416_CDS;__1 | -0.09147 | -0.13978 | 0.05575 | 0.07197 |
| 1411_RPA1417_CDS;__1 | -0.08414 | 0.01572 | 0.09658 | 0.00110 |
| 1412_RPA1418_CDS;__1 | -0.01320 | -0.03947 | 0.00530 | -0.02189 |
| 1413_RPA1419_CDS;__1 | -0.20212 | 0.03106 | 0.01454 | 0.00982 |
| 1414_RPA1420_ybdE;__ | -0.07694 | -0.19791 | -0.05337 | 0.02631 |
| 1415_RPA1421_CDS;__1 | 0.12177 | -0.45055 | -0.10432 | 0.10875 |
| 1416_RPA1422_CDS;__1 | -0.33192 | 0.08517 | -0.09472 | -0.00810 |
| 1417_RPA1423_CDS;__1 | -0.16339 | 0.06458 | -0.02100 | -0.07479 |
| 1418_RPA1424_CDS;__1 | 0.06045 | 0.07370 | 0.04294 | 0.01751 |
| 1419_RPA1425_cysE;__ | -0.04386 | 0.05678 | 0.07429 | -0.07073 |
| 1420_RPA1426_CDS;__1 | -0.09266 | -0.05384 | 0.03205 | -0.06140 |
| 1421_RPA1427_CDS;__1 | -0.03712 | -0.03771 | 0.00503 | -0.19217 |
| 1422_RPA1428_CDS;__1 | -0.14519 | 0.06512 | -0.27952 | -0.00525 |
| 1423_RPA1429_CDS;__1 | -0.08885 | 0.06455 | 0.05204 | 0.10022 |
| 1424_RPA1430_CDS;__1 | -0.10590 | -0.01169 | -0.02115 | -0.17750 |
| 1425_RPA1431_draT;__ | 0.03891 | -0.01414 | 0.02709 | 0.04757 |
| 1426_RPA1432_CDS;__1 | -0.09173 | -0.18995 | -0.01087 | 0.10118 |
| 1427_RPA1433_CDS;__1 | -0.14756 | 0.05300 | 0.01396 | 0.04604 |
| 1428_RPA1434_CDS;__1 | -0.00619 | 0.10692 | 0.01258 | 0.10463 |
| 1429_RPA1435_anfK;__ | -0.25336 | -0.00670 | 0.01536 | -0.08740 |

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| 1430_RPA1436_anfG;__ | -0.18390 | -0.06259 | -0.22771 | -0.01167 |
| 1431_RPA1437_anfD;__ | -0.23755 | -0.04354 | -0.10750 | -0.01251 |
| 1432_RPA1438_anfH;__ | -0.17840 | 0.12494 | -0.04830 | 0.10336 |
| 1433_RPA1439_anfA;__ | -0.12095 | 0.06564 | 0.11320 | 0.01133 |
| 1434_RPA1440_CDS;__1 | 0.15591 | 0.12174 | 0.02361 | 0.09526 |
| 1435_RPA1441_CDS;__1 | -0.09932 | -0.46305 | -0.14754 | 0.01908 |
| 1436_RPA1442_CDS;__1 | -0.11841 | 0.10783 | -0.14540 | 0.02423 |
| 1437_RPA1443_CDS;__1 | 0.04630 | 0.10054 | 0.01122 | 0.06865 |
| 1438_RPA1444_CDS;__1 | -0.05996 | -0.07927 | 0.16347 | 0.02114 |
| 1439_RPA1445_CDS;__1 | 0.10207 | 0.01698 | -0.08849 | -0.06808 |
| 1440_RPA1446_CDS;__1 | -0.19479 | 0.06858 | -0.02739 | -0.08757 |
| 1441_RPA1447_CDS;__1 | -0.16791 | 0.05171 | -0.00429 | 0.01822 |
| 1442_RPA1448_CDS;__1 | -0.01866 | 0.01455 | 0.18532 | 0.00663 |
| 1443_RPA1449_CDS;__1 | -0.03231 | -0.27226 | -0.13432 | -0.00900 |
| 1444_RPA1450_CDS;__1 | -0.08921 | 0.03042 | -0.00143 | 0.01483 |
| 1445_RPA1451_CDS;__1 | -0.05277 | -0.25341 | 0.04167 | 0.04790 |
| 1446_RPA1452_CDS;__1 | -0.04467 | -0.06659 | 0.19984 | 0.11134 |
| 1447_RPA1453_norE;__ | 0.05105 | -0.29960 | 0.01239 | 0.07758 |
| 1448_RPA1454_CDS;__1 | 0.41180 | 0.09805 | 0.28307 | -0.33355 |
| 1449_RPA1455_norC;__ | -0.08199 | 0.12117 | -0.09813 | 0.07826 |
| 1450_RPA1456_norB;__ | -0.10802 | -0.02344 | -0.05703 | 0.05849 |
| 1451_RPA1457_norQ;__ | -0.03501 | -0.01987 | 0.04618 | -0.06103 |
| 1452_RPA1458_norD;__ | 0.04613 | -0.04763 | 0.22683 | -0.03600 |
| 1453_RPA1461_CDS;__1 | 0.03930 | -0.01826 | 0.02448 | 0.10314 |
| 1454_RPA1462_CDS;__1 | -0.10712 | 0.04813 | 0.08162 | 0.09038 |
| 1455_RPA1463_ilvD;__ | -0.19294 | -0.02160 | -0.11309 | -0.04119 |
| 1456_RPA1464_CDS;__1 | -0.10718 | 0.05038 | 0.00323 | 0.07443 |
| 1457_RPA1465_CDS;__1 | -0.02735 | -0.28918 | 0.01748 | 0.01844 |
| 1458_RPA1466_CDS;__1 | -0.01515 | 0.04990 | 0.08035 | -0.00901 |
| 1459_RPA1467_CDS;__1 | 0.08611 | -0.49896 | -0.10273 | 0.06862 |
| 1460_RPA1468_CDS;__1 | 0.03857 | -0.00957 | 0.07128 | 0.03744 |
| 1461_RPA1469_gatA;__ | 0.00128 | -0.00226 | -0.11394 | 0.11691 |
| 1462_RPA1470_CDS;__1 | -0.12761 | 0.06179 | 0.04072 | 0.01849 |
| 1463_RPA1471_CDS;__1 | -0.06947 | 0.13080 | -0.11523 | 0.04086 |
| 1464_RPA1472_CDS;__1 | -0.17603 | 0.06087 | 0.00600 | 0.04634 |
| 1465_RPA1473_CDS;__1 | -0.16152 | 0.12280 | -0.09181 | 0.00429 |
| 1466_RPA1474_CDS;__1 | -0.12001 | -0.00158 | -0.04186 | -0.02333 |
| 1467_RPA1475_CDS;__1 | 0.09113 | 0.08434 | 0.04941 | 0.09955 |
| 1468_RPA1476_CDS;__1 | -0.01005 | 0.02612 | -0.10807 | -0.00327 |
| 1469_RPA1477_CDS;__1 | 0.17252 | -0.50959 | -0.03313 | 0.13813 |
| 1470_RPA1478_CDS;__1 | 0.03249 | -0.04310 | 0.10470 | 0.10266 |
| 1471_RPA1479_CDS;__1 | 0.01679 | -0.23099 | 0.11842 | -0.10637 |
| 1472_RPA1480_cpdA;__ | 0.14306 | -0.25875 | -0.11728 | 0.11698 |
| 1473_RPA1481_CDS;__1 | 0.27966 | 0.13675 | -0.13258 | -0.04468 |
| 1474_RPA1482_CDS;__1 | 0.03726 | 0.09201 | 0.07464 | 0.11655 |
| 1475_RPA1483_CDS;__1 | 0.05762 | 0.07045 | 0.08062 | 0.08940 |
| 1476_RPA1484_pgm;__ | -0.12798 | 0.04045 | 0.12646 | -0.06253 |
| 1477_RPA1485_nnrU;__ | 0.01905 | 0.05722 | 0.04831 | -0.11286 |
| 1478_RPA1486_CDS;__1 | -0.08678 | -0.50138 | -0.07659 | 0.02952 |
| 1479_RPA1487_CDS;__1 | -0.19983 | -0.01169 | 0.05899 | -0.00859 |
| 1480_RPA1488_CDS;__1 | -0.16215 | 0.05269 | 0.05735 | 0.07145 |
| 1481_RPA1489_CDS;__1 | -0.05381 | -0.20317 | 0.02358 | 0.12269 |
| 1482_RPA1490_CDS;__1 | -0.01879 | 0.06388 | 0.04661 | 0.01946 |
| 1483_RPA1491_pucBe;__ | -0.23763 | -0.01994 | -0.17627 | -0.06640 |
| 1484_RPA1492_pucAe;__ | 0.10803 | 0.15040 | -0.60280 | -0.43444 |
| 1485_RPA1493_pucC;__ | 0.04712 | 0.00016 | -0.03711 | -0.04453 |
| 1486_RPA1494_CDS;__1 | 0.05406 | 0.09480 | -0.24296 | -0.01234 |

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| 1487_RPA1495_CDS;__1 | -0.00199 | -0.01081 | -0.00665 | 0.00941 |
| 1488_RPA1496_CDS;__1 | -0.02050 | -0.13630 | -0.03849 | -0.04479 |
| 1489_RPA1497_mexC;__ | -0.05887 | 0.05623 | 0.04684 | 0.05583 |
| 1490_RPA1498_mexD;__ | -0.15492 | -0.17892 | -0.01758 | -0.01045 |
| 1491_RPA1499_CDS;__1 | 0.01758 | 0.04723 | -0.20613 | -0.08827 |
| 1492_RPA1500_CDS;__1 | 0.00193 | 0.07954 | 0.00596 | -0.10810 |
| 1493_RPA1501_CDS;__1 | -0.03965 | 0.02551 | -0.03454 | 0.04410 |
| 1494_RPA1502_CDS;__1 | 0.01558 | -0.03325 | 0.08259 | 0.12099 |
| 1495_RPA1503_CDS;__1 | -0.10237 | 0.03844 | 0.09676 | 0.00834 |
| 1496_RPA1504_CDS;__1 | 0.05155 | -0.18368 | -0.06657 | 0.10348 |
| 1497_RPA1505_CDS;__1 | -0.03263 | 0.05185 | 0.05996 | -0.13546 |
| 1498_RPA1506_bchI;__ | -0.00471 | 0.03229 | -0.21526 | -0.02582 |
| 1499_RPA1507_bchD;__ | -0.08952 | 0.03357 | 0.04475 | -0.03652 |
| 1500_RPA1508_CDS;__1 | -0.02238 | -0.07132 | 0.07182 | 0.13347 |
| 1501_RPA1509_hemE;__ | -0.14215 | 0.05731 | 0.01910 | -0.05946 |
| 1502_RPA1510_CDS;__1 | 0.02650 | -0.06544 | 0.15640 | 0.00589 |
| 1503_RPA1511_CDS;__1 | 0.15153 | -0.48461 | -0.03979 | 0.02032 |
| 1504_RPA1512_crtI;__ | -0.01575 | 0.09010 | -0.05778 | -0.09009 |
| 1505_RPA1513_crtB;__ | -0.16065 | 0.05655 | 0.03772 | -0.10718 |
| 1506_RPA1514_hemF;__ | -0.10133 | 0.05980 | 0.08182 | -0.03276 |
| 1507_RPA1515_CDS;__1 | 0.02335 | -0.03677 | -0.02204 | -0.00025 |
| 1508_RPA1516_CDS;__1 | -0.03430 | 0.14240 | 0.05377 | 0.11498 |
| 1509_RPA1517_crtC;__ | -0.02544 | 0.06574 | 0.12779 | -0.00591 |
| 1510_RPA1518_crtD;__ | 0.02899 | 0.06739 | 0.07468 | 0.02521 |
| 1511_RPA1519_crtE;__ | 0.03769 | -0.14841 | -0.10370 | -0.28157 |
| 1512_RPA1520_crtF;__ | 0.01396 | 0.06152 | 0.03925 | 0.00665 |
| 1513_RPA1521_bchC;__ | 0.14156 | 0.09014 | 0.00148 | -0.12526 |
| 1514_RPA1522_bchX;__ | -0.15984 | 0.02781 | -0.14887 | -0.03744 |
| 1515_RPA1523_bchY;__ | -0.15826 | 0.08431 | -0.09184 | -0.08243 |
| 1516_RPA1524_bchZ;__ | -0.05281 | 0.09471 | -0.06631 | -0.08680 |
| 1517_RPA1525_pufB;__ | 0.23293 | 0.25182 | -0.53845 | -0.48840 |
| 1518_RPA1526_pufA;__ | 0.00969 | 0.02401 | -0.18627 | -0.22372 |
| 1519_RPA1527_pufL;__ | 0.02686 | -0.01096 | -0.27692 | -0.18246 |
| 1520_RPA1528_pufM;__ | -0.01138 | -0.00405 | -0.18420 | -0.12956 |
| 1521_RPA1529_ppsR1;__ | 0.16407 | -0.09214 | -0.02656 | -0.05105 |
| 1522_RPA1530_bchG;__ | -0.20201 | -0.07725 | -0.07778 | -0.13853 |
| 1523_RPA1531_CDS;__1 | -0.04775 | -0.50701 | -0.13233 | 0.01497 |
| 1524_RPA1532_bchP;__ | -0.24962 | 0.03658 | 0.06791 | -0.02951 |
| 1525_RPA1533_tspO;__ | -0.03756 | -0.02407 | 0.06435 | -0.21226 |
| 1526_RPA1534_CDS;__1 | -0.29031 | 0.09064 | -0.01648 | 0.13502 |
| 1527_RPA1535_cycA;__ | -0.04574 | 0.18682 | -0.50588 | -0.34064 |
| 1528_RPA1536_ppsR2;__ | 0.07709 | 0.12071 | -0.10985 | -0.00411 |
| 1529_RPA1539_CDS;__1 | -0.07502 | 0.02212 | 0.15560 | 0.07696 |
| 1530_RPA1540_CDS;__1 | 0.20484 | 0.05186 | -0.03300 | -0.18886 |
| 1531_RPA1541_bchF;__ | 0.05535 | -0.43528 | -0.14703 | -0.18065 |
| 1532_RPA1542_bchN;__ | -0.07948 | -0.07854 | -0.18165 | -0.12224 |
| 1533_RPA1543_bchB;__ | -0.03842 | 0.09172 | -0.08490 | 0.01208 |
| 1534_RPA1544_bchH;__ | -0.19894 | 0.06491 | -0.01366 | 0.01994 |
| 1535_RPA1545_bchL;__ | -0.10388 | 0.08230 | -0.03410 | -0.14574 |
| 1536_RPA1546_bchM;__ | -0.09977 | 0.07387 | -0.05859 | 0.00377 |
| 1537_RPA1547_lhaA;__ | 0.00456 | 0.06333 | -0.06034 | -0.13342 |
| 1538_RPA1548_puhA;__ | -0.10238 | 0.13739 | -0.22601 | -0.09508 |
| 1539_RPA1549_CDS;__1 | 0.12475 | 0.08163 | 0.08542 | -0.08184 |
| 1540_RPA1550_CDS;__1 | 0.07913 | 0.05453 | -0.12069 | -0.13034 |
| 1541_RPA1551_CDS;__1 | 0.19499 | 0.13295 | -0.15900 | -0.13170 |
| 1542_RPA1552_CDS;__1 | -0.19922 | 0.07196 | 0.03207 | 0.06251 |
| 1543_RPA1553_CDS;__1 | 0.06034 | 0.04688 | 0.12428 | -0.01481 |

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|------------------------|----------|----------|----------|----------|
| 1544_RPA1554_hemA;__ | -0.24586 | -0.03661 | -0.02482 | -0.03678 |
| 1545_RPA1555_cbbR;__ | -0.22453 | 0.03209 | 0.12517 | 0.06044 |
| 1546_RPA1556_CDS;__1 | 0.22215 | 0.11353 | 0.00723 | -0.04010 |
| 1547_RPA1557_CDS;__1 | -0.04617 | -0.03740 | 0.08088 | 0.08029 |
| 1548_RPA1558_CDS;__1 | -0.09401 | -0.02666 | 0.11446 | -0.00699 |
| 1549_RPA1559_cbbL;__ | -0.32033 | 0.07504 | -0.13940 | -0.04056 |
| 1550_RPA1560_cbbS;__ | -0.03283 | -0.14422 | -0.21664 | 0.07342 |
| 1551_RPA1561_cbbX;__ | -0.02310 | 0.01925 | -0.06440 | -0.01643 |
| 1552_RPA1562_CDS;__1 | 0.20829 | 0.09868 | 0.13829 | 0.04781 |
| 1553_RPA1563_CDS;__1 | 0.18362 | 0.09601 | 0.01403 | 0.00149 |
| 1554_RPA1564_CDS;__1 | -0.03182 | -0.08924 | -0.10444 | 0.00613 |
| 1555_RPA1565_CDS;__1 | 0.14692 | 0.10654 | -0.00342 | -0.14261 |
| 1556_RPA1566_CDS;__1 | 0.21647 | -0.16529 | -0.01560 | 0.09252 |
| 1557_RPA1567_CDS;__1 | -0.03792 | 0.00809 | -0.04175 | -0.09813 |
| 1558_RPA1568_CDS;__1 | 0.00561 | -0.46183 | -0.24988 | -0.00158 |
| 1559_RPA1569_CDS;__1 | -0.17121 | 0.01613 | 0.09016 | 0.02432 |
| 1560_RPA1570_CDS;__1 | -0.23233 | 0.06988 | -0.02798 | -0.01876 |
| 1561_RPA1571_dapA;__ | -0.13700 | 0.01310 | 0.05852 | 0.01324 |
| 1562_RPA1572_CDS;__1 | -0.25134 | 0.04821 | 0.01866 | -0.00763 |
| 1563_RPA1573_CDS;__1 | -0.19500 | 0.06206 | 0.03429 | 0.05135 |
| 1564_RPA1574_CDS;__1 | -0.13269 | 0.04506 | 0.11022 | -0.14780 |
| 1565_RPA1575_CDS;__1 | -0.25324 | 0.02714 | 0.10862 | 0.01859 |
| 1566_RPA1576_CDS;__1 | 0.05710 | 0.03028 | 0.16934 | 0.08649 |
| 1567_RPA1577_CDS;__1 | -0.07858 | -0.00137 | -0.04879 | -0.09742 |
| 1568_RPA1578_fpr;__ | -0.07745 | -0.21022 | 0.01327 | -0.09685 |
| 1569_RPA1579_CDS;__1 | -0.21219 | -0.09423 | 0.04259 | -0.02879 |
| 1570_RPA1580_putA;__ | -0.00172 | -0.00561 | -0.04446 | 0.04075 |
| 1571_RPA1581_CDS;__1 | 0.01335 | 0.05511 | 0.08661 | -0.04454 |
| 1572_RPA1582_cyaA;__ | -0.13605 | -0.01545 | 0.05547 | 0.05836 |
| 1573_RPA1583_CDS;__1 | -0.18504 | -0.01016 | 0.01953 | -0.00558 |
| 1574_RPA1584_CDS;__1 | -0.07817 | -0.15071 | 0.10107 | -0.10023 |
| 1575_RPA1585_CDS;__1 | -0.08789 | -0.00942 | 0.18884 | 0.06949 |
| 1576_RPA1586_CDS;__1 | -0.27139 | 0.08338 | -0.11523 | -0.02489 |
| 1577_RPA1587_CDS;__1 | 0.17001 | 0.12236 | 0.14630 | -0.06930 |
| 1578_RPA1588_CDS;__1 | 0.06129 | -0.06331 | 0.06135 | 0.02120 |
| 1579_RPA1589_rpsD;__ | -0.18554 | 0.08431 | -0.20772 | 0.00909 |
| 1580_RPA1590_CDS;__1 | -0.00642 | -0.23148 | 0.11187 | 0.13617 |
| 1581_RPA1591_CDS;__1 | -0.04660 | 0.12097 | -0.00374 | 0.03344 |
| 1582_RPA1592_murI;__ | -0.17835 | 0.04402 | 0.03937 | 0.05439 |
| 1583_RPA1593_CDS;__1 | -0.08538 | 0.07462 | 0.08355 | -0.21778 |
| 1584_RPA1594_trpB-1;__ | -0.28204 | 0.08037 | -0.12580 | -0.02569 |
| 1585_RPA1595_CDS;__1 | 0.74808 | 0.22285 | -0.13810 | 0.06691 |
| 1586_RPA1596_CDS;__1 | -0.02104 | 0.19883 | -0.19481 | -0.08117 |
| 1587_RPA1597_purQ;__ | -0.23740 | 0.07352 | -0.06333 | -0.00054 |
| 1588_RPA1598_CDS;__1 | -0.15393 | 0.00799 | 0.19200 | 0.07892 |
| 1589_RPA1599_CDS;__1 | 0.09506 | 0.01132 | 0.30344 | -0.21615 |
| 1590_RPA1600_CDS;__1 | -0.21370 | -0.10414 | 0.07590 | -0.00139 |
| 1591_RPA1601_CDS;__1 | 0.26992 | 0.06284 | 0.18289 | -0.14782 |
| 1592_RPA1602_CDS;__1 | -0.00124 | 0.07186 | 0.09639 | -0.07375 |
| 1593_RPA1603_CDS;__1 | 0.11290 | 0.03642 | 0.19077 | -0.16860 |
| 1594_RPA1604_CDS;__1 | 0.04296 | 0.08719 | 0.06190 | 0.08348 |
| 1595_RPA1605_CDS;__1 | -0.06259 | -0.04172 | -0.02315 | 0.08386 |
| 1596_RPA1606_CDS;__1 | -0.05093 | -0.14599 | -0.15450 | 0.15536 |
| 1597_RPA1607_CDS;__1 | 0.12784 | -0.11732 | -0.30875 | -0.15847 |
| 1598_RPA1608_CDS;__1 | -0.17225 | 0.07484 | -0.02236 | 0.02859 |
| 1599_RPA1609_md1C;__ | -0.08356 | 0.03147 | 0.12612 | -0.02400 |
| 1600_RPA1610_CDS;__1 | -0.20341 | 0.06160 | 0.02791 | 0.00965 |

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| 1601_RPA1611_CDS;__1 | -0.26154 | 0.05247 | -0.00963 | -0.00903 |
| 1602_RPA1612_CDS;__1 | -0.24650 | -0.10045 | -0.09436 | 0.06521 |
| 1603_RPA1613_CDS;__1 | -0.16659 | 0.04290 | 0.04037 | 0.05806 |
| 1604_RPA1614_ivd2;__ | -0.27038 | 0.10586 | -0.09777 | 0.05270 |
| 1605_RPA1615_CDS;__1 | 0.10694 | 0.08779 | 0.01220 | -0.09302 |
| 1606_RPA1616_CDS;__1 | -0.13866 | 0.10046 | -0.00636 | 0.06192 |
| 1607_RPA1617_CDS;__1 | -0.23734 | 0.07153 | -0.03195 | 0.05235 |
| 1608_RPA1618_ilvX;__ | -0.25019 | 0.02635 | 0.06061 | -0.03294 |
| 1609_RPA1619_CDS;__1 | -0.10729 | -0.15923 | 0.07654 | 0.05122 |
| 1610_RPA1620_CDS;__1 | -0.03701 | -0.08685 | 0.24788 | 0.09665 |
| 1611_RPA1621_CDS;__1 | 0.81974 | 0.06529 | -0.24921 | 0.07152 |
| 1612_RPA1622_CDS;__1 | -0.18864 | -0.03034 | 0.07649 | 0.06659 |
| 1613_RPA1623_CDS;__1 | -0.08955 | 0.06820 | 0.02496 | 0.07179 |
| 1614_RPA1624_CDS;__1 | 0.12721 | 0.12829 | 0.01312 | -0.16157 |
| 1615_RPA1625_cysQ;__ | -0.08568 | -0.07508 | 0.06351 | 0.04682 |
| 1616_RPA1626_CDS;__1 | 0.16708 | 0.00476 | -0.11010 | -0.00082 |
| 1617_RPA1627_cheAY1;__ | -0.18429 | 0.06089 | -0.01746 | -0.02692 |
| 1618_RPA1628_cheW1;__ | -0.16027 | 0.06893 | -0.12530 | 0.04146 |
| 1619_RPA1629_cheY1;__ | -0.09563 | -0.13919 | 0.07785 | 0.03978 |
| 1620_RPA1630_cheB1;__ | 0.06535 | 0.10736 | -0.09633 | -0.15755 |
| 1621_RPA1631_cheR1;__ | -0.19717 | 0.02470 | 0.08620 | 0.05420 |
| 1622_RPA1632_ctrA;__ | -0.21453 | 0.13210 | -0.11884 | -0.01193 |
| 1623_RPA1633_fliI;__ | 0.01791 | -0.03456 | -0.10427 | -0.10190 |
| 1624_RPA1634_CDS;__1 | 0.13998 | 0.07516 | -0.11240 | -0.13589 |
| 1625_RPA1635_CDS;__1 | 0.00130 | -0.21084 | -0.10485 | 0.04288 |
| 1626_RPA1636_CDS;__1 | -0.06513 | 0.00262 | -0.01007 | 0.02650 |
| 1627_RPA1637_CDS;__1 | -0.01216 | -0.05789 | 0.24761 | -0.43618 |
| 1628_RPA1638_flhA;__ | -0.27781 | 0.04908 | -0.03320 | 0.00896 |
| 1629_RPA1639_CDS;__1 | -0.16494 | 0.02854 | 0.11623 | 0.00870 |
| 1630_RPA1640_CDS;__1 | -0.01349 | 0.02932 | -0.06917 | -0.04773 |
| 1631_RPA1641_CDS;__1 | 0.08182 | -0.04722 | 0.10307 | 0.03065 |
| 1632_RPA1642_CDS;__1 | 0.13304 | -0.19388 | 0.01891 | -0.03176 |
| 1633_RPA1643_CDS;__1 | -0.04957 | 0.04405 | 0.14979 | -0.04641 |
| 1634_RPA1644_CDS;__1 | 0.06831 | 0.00354 | -0.08164 | 0.10381 |
| 1635_RPA1645_CDS;__1 | -0.18963 | 0.10156 | -0.02319 | 0.17131 |
| 1636_RPA1646_CDS;__1 | -0.01905 | -0.13807 | -0.00637 | 0.05109 |
| 1637_RPA1647_CDS;__1 | -0.13004 | 0.01256 | 0.15863 | -0.03887 |
| 1638_RPA1648_CDS;__1 | -0.12507 | -0.01566 | -0.00878 | 0.00791 |
| 1639_RPA1649_CDS;__1 | -0.18151 | -0.07251 | 0.09388 | 0.03424 |
| 1640_RPA1650_CDS;__1 | -0.06631 | 0.09684 | -0.01378 | 0.11306 |
| 1641_RPA1651_CDS;__1 | -0.02135 | 0.00240 | 0.01182 | 0.06037 |
| 1642_RPA1652_CDS;__1 | 0.58206 | 0.20789 | -0.06510 | -0.11629 |
| 1643_RPA1653_CDS;__1 | -0.12338 | -0.02374 | 0.14408 | 0.09269 |
| 1644_RPA1654_CDS;__1 | -0.21196 | 0.05955 | 0.00259 | 0.03505 |
| 1645_RPA1655_CDS;__1 | -0.01901 | -0.19141 | -0.06234 | 0.14942 |
| 1646_RPA1656_CDS;__1 | -0.01042 | -0.05389 | 0.08930 | -0.12255 |
| 1647_RPA1657_CDS;__1 | -0.04362 | -0.11137 | 0.03482 | 0.06763 |
| 1648_RPA1658_ptpS;__ | -0.13887 | -0.11451 | 0.13702 | 0.09958 |
| 1649_RPA1659_CDS;__1 | 0.08670 | -0.45718 | -0.12853 | 0.06004 |
| 1650_RPA1660_CDS;__1 | -0.02135 | 0.02712 | 0.03329 | -0.04105 |
| 1651_RPA1661_CDS;__1 | -0.16631 | -0.15166 | 0.06499 | 0.21316 |
| 1652_RPA1662_CDS;__1 | -0.00425 | -0.04146 | -0.04623 | 0.04088 |
| 1653_RPA1663_hpaD;__ | 0.08063 | 0.11008 | -0.01786 | -0.23416 |
| 1654_RPA1664_CDS;__1 | -0.12265 | 0.09229 | -0.08087 | -0.02045 |
| 1655_RPA1665_CDS;__1 | -0.13253 | 0.15232 | -0.28161 | -0.11597 |
| 1656_RPA1666_hemN;__ | -0.26282 | -0.08094 | -0.07110 | -0.00701 |
| 1657_RPA1667_bchJ;__ | 0.17342 | 0.00007 | -0.04302 | 0.14234 |

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| 1658_RPA1668_bchE;__ | -0.18030 | -0.05448 | -0.22299 | 0.01894 |
| 1659_RPA1669_CDS;__1 | 0.27040 | -0.08246 | 0.00134 | -0.06271 |
| 1660_RPA1670_CDS;__1 | -0.09897 | 0.04266 | 0.07557 | -0.05079 |
| 1661_RPA1671_CDS;__1 | -0.06536 | -0.23099 | -0.00210 | -0.02740 |
| 1662_RPA1672_CDS;__1 | 0.10313 | 0.15582 | -0.11859 | -0.06789 |
| 1663_RPA1673_CDS;__1 | -0.17620 | -0.03266 | 0.06005 | 0.00866 |
| 1664_RPA1674_CDS;__1 | -0.16915 | 0.03838 | 0.03478 | -0.02560 |
| 1665_RPA1675_CDS;__1 | 0.03922 | -0.00796 | 0.02119 | -0.10906 |
| 1666_RPA1676_cheAY2; | -0.19901 | 0.05886 | -0.01815 | -0.02875 |
| 1667_RPA1677_cheW4;__ | -0.14485 | 0.05907 | -0.08605 | 0.06901 |
| 1668_RPA1678_cheR3;__ | -0.00698 | -0.08600 | -0.07175 | -0.09977 |
| 1669_RPA1679_CDS;__1 | 0.03296 | 0.11865 | -0.13169 | -0.01829 |
| 1670_RPA1680_CDS;__1 | -0.09624 | -0.06729 | -0.05442 | -0.04464 |
| 1671_RPA1681_CDS;__1 | -0.03415 | 0.08975 | 0.05250 | 0.03083 |
| 1672_RPA1682_CDS;__1 | -0.05845 | 0.04713 | 0.05292 | 0.05459 |
| 1673_RPA1683_CDS;__1 | -0.23078 | -0.05051 | -0.05775 | 0.03500 |
| 1674_RPA1684_CDS;__1 | -0.08545 | 0.00389 | -0.00766 | 0.02321 |
| 1675_RPA1685_CDS;__1 | 0.20923 | 0.12597 | 0.02435 | 0.08037 |
| 1676_RPA1686_CDS;__1 | -0.14738 | -0.04118 | 0.04760 | 0.06738 |
| 1677_RPA1687_CDS;__1 | -0.17968 | 0.05096 | 0.04441 | 0.04080 |
| 1678_RPA1688_CDS;__1 | 0.30464 | -0.21431 | -0.03893 | -0.01455 |
| 1679_RPA1689_CDS;__1 | -0.04208 | -0.14295 | 0.04573 | -0.04502 |
| 1680_RPA1690_CDS;__1 | -0.08921 | 0.04906 | 0.08816 | 0.05621 |
| 1681_RPA1691_matE;__ | 0.06539 | -0.22906 | 0.06647 | 0.04938 |
| 1682_RPA1692_CDS;__1 | -0.03754 | -0.24138 | -0.01044 | -0.02709 |
| 1683_RPA1693_sodB;__ | -0.22477 | 0.04981 | -0.27334 | -0.10082 |
| 1684_RPA1694_crcB;__ | 0.22617 | -0.49061 | -0.04011 | 0.18979 |
| 1685_RPA1695_CDS;__1 | 0.33437 | -0.06147 | 0.09877 | -0.14408 |
| 1686_RPA1696_CDS;__1 | 0.18825 | 0.04677 | 0.10452 | 0.01698 |
| 1687_RPA1697_CDS;__1 | 0.19653 | -0.13740 | -0.12559 | 0.16314 |
| 1688_RPA1698_CDS;__1 | 0.06583 | -0.19164 | -0.04530 | 0.08685 |
| 1689_RPA1699_CDS;__1 | -0.01482 | -0.04669 | 0.07342 | 0.01496 |
| 1690_RPA1700_CDS;__1 | -0.18497 | 0.05759 | 0.03073 | 0.01906 |
| 1691_RPA1701_CDS;__1 | 0.06948 | 0.03136 | 0.23087 | 0.02959 |
| 1692_RPA1702_CDS;__1 | -0.25577 | 0.04136 | 0.04208 | 0.05374 |
| 1693_RPA1703_CDS;__1 | -0.21083 | 0.08226 | -0.10130 | -0.07210 |
| 1694_RPA1704_CDS;__1 | 0.24444 | 0.16760 | -0.17659 | -0.10051 |
| 1695_RPA1705_CDS;__1 | 0.06490 | -0.07384 | -0.08142 | 0.08136 |
| 1696_RPA1706_CDS;__1 | -0.05257 | -0.03005 | 0.01499 | 0.03167 |
| 1697_RPA1707_fcs1;__ | -0.22256 | 0.01594 | 0.08519 | 0.03731 |
| 1698_RPA1708_CDS;__1 | -0.25145 | 0.05606 | -0.07309 | -0.04761 |
| 1699_RPA1709_CDS;__1 | -0.24115 | 0.06925 | -0.08657 | -0.01852 |
| 1700_RPA1710_CDS;__1 | -0.28097 | 0.08386 | -0.10278 | -0.01724 |
| 1701_RPA1711_pnbA;__ | -0.12242 | 0.06414 | 0.08215 | -0.15983 |
| 1702_RPA1712_CDS;__1 | -0.13057 | -0.22061 | 0.00629 | 0.09877 |
| 1703_RPA1713_CDS;__1 | -0.01973 | 0.04490 | 0.13008 | -0.03716 |
| 1704_RPA1714_CDS;__1 | 0.16002 | 0.06647 | 0.19461 | 0.03659 |
| 1705_RPA1715_CDS;__1 | 0.02782 | 0.04134 | 0.12598 | 0.01641 |
| 1706_RPA1716_CDS;__1 | 0.10996 | -0.23532 | 0.00340 | 0.01488 |
| 1707_RPA1717_CDS;__1 | 0.29921 | 0.04192 | 0.12831 | -0.14965 |
| 1708_RPA1718_CDS;__1 | 0.16682 | -0.09430 | -0.04915 | -0.11630 |
| 1709_RPA1719_CDS;__1 | -0.10711 | -0.07349 | 0.22627 | 0.03676 |
| 1710_RPA1720_CDS;__1 | -0.08753 | 0.05552 | 0.13464 | 0.12301 |
| 1711_RPA1721_CDS;__1 | 0.11537 | 0.03094 | 0.17806 | -0.00030 |
| 1712_RPA1722_alkB;__ | -0.04307 | 0.02491 | 0.09636 | 0.00056 |
| 1713_RPA1723_paaK;__ | -0.13675 | 0.08778 | -0.04143 | -0.00731 |
| 1714_RPA1724_paaI;__ | -0.11072 | 0.09812 | -0.01067 | 0.07501 |

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| 1715_RPA1725_CDS;__1 | -0.07021 | 0.04159 | 0.13864 | -0.15825 |
| 1716_RPA1726_CDS;__1 | -0.08971 | 0.06162 | -0.04194 | 0.02924 |
| 1717_RPA1727_CDS;__1 | -0.00597 | 0.02014 | 0.22143 | -0.00472 |
| 1718_RPA1728_CDS;__1 | 0.63350 | -0.00165 | 0.01451 | -0.01217 |
| 1719_RPA1729_CDS;__1 | -0.10823 | -0.19989 | 0.15482 | -0.05481 |
| 1720_RPA1730_CDS;__1 | -0.08174 | -0.04673 | 0.06281 | 0.02287 |
| 1721_RPA1731_CDS;__1 | 0.01845 | 0.06524 | 0.15451 | 0.04293 |
| 1722_RPA1732_CDS;__1 | -0.02248 | -0.02448 | 0.03088 | 0.07422 |
| 1723_RPA1733_fdxA;__ | -0.01702 | -0.00819 | -0.24822 | 0.23381 |
| 1724_RPA1734_CDS;__1 | -0.18544 | -0.06926 | -0.04703 | 0.00350 |
| 1725_RPA1736_bgIA;__ | -0.10355 | 0.08502 | 0.02241 | 0.06061 |
| 1726_RPA1737_CDS;__1 | -0.07070 | -0.18013 | -0.03592 | 0.08969 |
| 1727_RPA1738_CDS;__1 | -0.07362 | -0.20911 | -0.06486 | -0.08700 |
| 1728_RPA1739_CDS;__1 | -0.12021 | 0.05519 | 0.01960 | 0.05545 |
| 1729_RPA1740_CDS;__1 | -0.13251 | 0.05367 | 0.08860 | 0.11573 |
| 1730_RPA1741_CDS;__1 | -0.20463 | 0.09497 | -0.11794 | 0.01579 |
| 1731_RPA1742_yeaU;__ | -0.15587 | 0.05150 | -0.02270 | -0.00010 |
| 1732_RPA1743_CDS;__1 | 0.15085 | -0.43792 | -0.14842 | -0.04448 |
| 1733_RPA1744_serA;__ | -0.09505 | 0.06964 | 0.06444 | -0.06840 |
| 1734_RPA1745_CDS;__1 | -0.08092 | 0.07736 | 0.03586 | 0.09593 |
| 1735_RPA1746_CDS;__1 | -0.00077 | 0.01775 | 0.17955 | 0.12250 |
| 1736_RPA1747_CDS;__1 | 0.12804 | 0.02569 | -0.13786 | 0.03345 |
| 1737_RPA1748_CDS;__1 | -0.13488 | 0.08437 | -0.10712 | -0.13837 |
| 1738_RPA1749_CDS;__1 | 0.06336 | 0.10804 | -0.22021 | 0.13134 |
| 1739_RPA1750_CDS;__1 | -0.14049 | -0.04781 | -0.09965 | 0.04516 |
| 1740_RPA1751_CDS;__1 | -0.01124 | -0.19131 | -0.09180 | -0.00125 |
| 1741_RPA1752_CDS;__1 | -0.13909 | 0.04386 | 0.02647 | -0.15213 |
| 1742_RPA1753_CDS;__1 | -0.02970 | 0.06126 | 0.11530 | 0.10412 |
| 1743_RPA1754_ragC;__ | -0.11728 | 0.05640 | -0.03723 | -0.03910 |
| 1744_RPA1755_ragD;__ | -0.05291 | 0.10394 | -0.03954 | -0.06473 |
| 1745_RPA1756_CDS;__1 | -0.11639 | -0.07780 | 0.02240 | 0.03540 |
| 1746_RPA1757_CDS;__1 | -0.16094 | -0.14215 | -0.01866 | -0.02301 |
| 1747_RPA1758_CDS;__1 | -0.21170 | -0.01985 | -0.14511 | -0.07114 |
| 1748_RPA1759_CDS;__1 | -0.04052 | 0.02533 | 0.07397 | -0.09152 |
| 1749_RPA1760_CDS;__1 | -0.06723 | 0.01817 | 0.21184 | 0.10276 |
| 1750_RPA1761_CDS;__1 | -0.16658 | 0.06749 | -0.02362 | 0.05002 |
| 1751_RPA1762_CDS;__1 | 0.02501 | -0.05507 | -0.12838 | 0.09198 |
| 1752_RPA1763_CDS;__1 | -0.22583 | 0.10728 | -0.05955 | 0.08960 |
| 1753_RPA1764_CDS;__1 | -0.24231 | 0.09124 | -0.04061 | -0.09856 |
| 1754_RPA1765_CDS;__1 | 0.03206 | -0.19466 | -0.09548 | -0.15407 |
| 1755_RPA1766_CDS;__1 | -0.15284 | -0.03535 | -0.01314 | -0.00878 |
| 1756_RPA1767_CDS;__1 | -0.08229 | -0.00141 | 0.01540 | 0.04883 |
| 1757_RPA1768_CDS;__1 | 0.04531 | -0.02216 | 0.09468 | 0.00241 |
| 1758_RPA1769_CDS;__1 | 0.12169 | 0.12614 | 0.03787 | -0.02223 |
| 1759_RPA1770_CDS;__1 | -0.03090 | 0.07313 | 0.10814 | 0.14098 |
| 1760_RPA1771_CDS;__1 | 0.02101 | 0.07459 | -0.01914 | 0.01494 |
| 1761_RPA1772_ppc;__ | -0.13583 | 0.04486 | 0.07713 | -0.02364 |
| 1762_RPA1773_CDS;__1 | 0.00579 | -0.12149 | 0.18322 | -0.00935 |
| 1763_RPA1774_CDS;__1 | -0.16882 | 0.03965 | 0.04641 | 0.03041 |
| 1764_RPA1775_CDS;__1 | -0.28981 | 0.07105 | -0.04413 | -0.03526 |
| 1765_RPA1776_CDS;__1 | -0.24557 | 0.05095 | 0.02092 | 0.01915 |
| 1766_RPA1777_CDS;__1 | -0.07938 | 0.11174 | -0.07873 | 0.02476 |
| 1767_RPA1778_CDS;__1 | -0.11245 | -0.04311 | 0.02313 | 0.00535 |
| 1768_RPA1779_CDS;__1 | -0.20596 | 0.02994 | 0.01587 | -0.01595 |
| 1769_RPA1780_CDS;__1 | 0.16352 | 0.08963 | 0.02846 | -0.27912 |
| 1770_RPA1781_phbH;__ | -0.14158 | 0.08459 | 0.03630 | 0.02836 |
| 1771_RPA1782_CDS;__1 | -0.12410 | 0.08795 | -0.02392 | 0.06466 |

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| 1772_RPA1783_CDS;__1 | 0.02086 | -0.44415 | -0.14836 | 0.02872 |
| 1773_RPA1784_CDS;__1 | -0.20061 | -0.01559 | 0.17314 | -0.02046 |
| 1774_RPA1785_CDS;__2 | -0.00092 | -0.01581 | 0.08516 | 0.14740 |
| 1775_RPA1786_CDS;__2 | -0.07795 | 0.04642 | 0.08053 | 0.08278 |
| 1776_RPA1787_fcs2;_ | -0.10980 | -0.10252 | 0.02838 | 0.01178 |
| 1777_RPA1788_CDS;__2 | 0.11258 | -0.48720 | -0.17126 | -0.02617 |
| 1778_RPA1789_CDS;__2 | -0.20091 | -0.01462 | -0.10053 | -0.13995 |
| 1779_RPA1790_CDS;__2 | -0.03688 | 0.05113 | 0.01336 | 0.02456 |
| 1780_RPA1791_CDS;__2 | -0.22655 | -0.00940 | -0.05873 | 0.03075 |
| 1781_RPA1792_CDS;__2 | -0.11394 | -0.21347 | -0.05078 | -0.02532 |
| 1782_RPA1793_CDS;__2 | -0.14228 | 0.07513 | -0.05412 | 0.00420 |
| 1783_RPA1794_CDS;__2 | -0.15386 | 0.08162 | -0.05886 | 0.00467 |
| 1784_RPA1795_CDS;__2 | -0.00288 | -0.05228 | -0.01564 | -0.07938 |
| 1785_RPA1796_CDS;__2 | -0.13536 | 0.05750 | 0.04562 | 0.01709 |
| 1786_RPA1797_CDS;__2 | -0.04958 | 0.06155 | 0.05989 | 0.09018 |
| 1787_RPA1798_CDS;__2 | -0.22416 | 0.10084 | -0.08826 | 0.00072 |
| 1788_RPA1799_ung;__2 | -0.09485 | 0.06671 | 0.09618 | 0.14243 |
| 1789_RPA1800_CDS;__2 | -0.05552 | -0.10131 | 0.01850 | 0.10091 |
| 1790_RPA1801_CDS;__2 | 0.16408 | -0.05900 | 0.00187 | -0.02996 |
| 1791_RPA1802_CDS;__2 | -0.03646 | 0.01721 | 0.26055 | 0.10535 |
| 1792_RPA1803_dnaE2;_ | -0.05495 | -0.02030 | 0.12493 | 0.01786 |
| 1793_RPA1804_CDS;__2 | 0.04022 | 0.04584 | 0.05430 | -0.00253 |
| 1794_RPA1805_CDS;__2 | 0.08881 | -0.01937 | 0.13395 | -0.04333 |
| 1795_RPA1806_CDS;__2 | -0.05840 | -0.07400 | -0.03717 | 0.01381 |
| 1796_RPA1807_CDS;__2 | -0.10793 | 0.05685 | 0.02232 | -0.05815 |
| 1797_RPA1808_czcA;_ | -0.13445 | 0.05910 | 0.00473 | 0.02965 |
| 1798_RPA1809_CDS;__2 | 0.02078 | -0.08409 | -0.04463 | 0.13553 |
| 1799_RPA1810_CDS;__2 | -0.11794 | 0.02034 | -0.02778 | 0.04154 |
| 1800_RPA1811_CDS;__2 | -0.15689 | 0.09702 | -0.06867 | -0.03841 |
| 1801_RPA1812_CDS;__2 | 0.19486 | 0.16485 | -0.04050 | 0.12478 |
| 1802_RPA1813_CDS;__2 | 0.24205 | -0.23880 | 0.12718 | 0.01374 |
| 1803_RPA1814_CDS;__2 | -0.00029 | -0.24507 | -0.08874 | -0.00937 |
| 1804_RPA1815_CDS;__2 | 0.33159 | -0.05119 | -0.04149 | -0.22631 |
| 1805_RPA1816_CDS;__2 | -0.05649 | -0.11836 | -0.01008 | 0.04286 |
| 1806_RPA1817_CDS;__2 | -0.07555 | -0.14834 | -0.02031 | 0.08984 |
| 1807_RPA1818_CDS;__2 | 0.10808 | 0.02496 | -0.00381 | 0.17795 |
| 1808_RPA1819_CDS;__2 | 0.34764 | 0.10904 | 0.09996 | 0.02739 |
| 1809_RPA1820_CDS;__2 | 0.09711 | -0.06711 | 0.05669 | -0.07949 |
| 1810_RPA1821_CDS;__2 | 0.12373 | 0.14441 | -0.18513 | -0.01871 |
| 1811_RPA1822_CDS;__2 | -0.04181 | 0.08739 | -0.10210 | -0.07954 |
| 1812_RPA1823_CDS;__2 | -0.05113 | -0.02313 | -0.06711 | 0.00619 |
| 1813_RPA1824_CDS;__2 | 0.24652 | 0.16184 | -0.15398 | 0.14073 |
| 1814_RPA1825_CDS;__2 | 0.24706 | 0.10909 | 0.16941 | -0.11188 |
| 1815_RPA1826_CDS;__2 | -0.04031 | 0.07726 | 0.06662 | 0.02490 |
| 1816_RPA1827_CDS;__2 | 0.21682 | 0.03202 | 0.23458 | -0.05343 |
| 1817_RPA1828_CDS;__2 | 0.12874 | 0.04723 | 0.20899 | -0.11786 |
| 1818_RPA1829_argK;__ | -0.12918 | 0.05561 | 0.04225 | 0.08169 |
| 1819_RPA1830_CDS;__2 | 0.12754 | 0.20553 | 0.05617 | 0.31481 |
| 1820_RPA1831_CDS;__2 | -0.06608 | -0.16400 | -0.14100 | 0.14071 |
| 1821_RPA1832_CDS;__2 | -0.00813 | -0.20406 | 0.06775 | -0.04127 |
| 1822_RPA1833_CDS;__2 | 0.46217 | 0.06367 | 0.05015 | -0.13794 |
| 1823_RPA1834_CDS;__2 | 0.53646 | 0.09687 | 0.05380 | -0.01404 |
| 1824_RPA1835_mutB;_ | -0.22412 | 0.06803 | -0.05644 | 0.01784 |
| 1825_RPA1836_CDS;__2 | -0.05937 | 0.05225 | 0.13359 | 0.12558 |
| 1826_RPA1837_CDS;__2 | -0.10576 | 0.01904 | -0.02001 | 0.00989 |
| 1827_RPA1838_folK;__ | -0.14216 | -0.21388 | -0.07281 | 0.10969 |
| 1828_RPA1839_folB;__ | -0.03976 | -0.47599 | -0.08467 | -0.01098 |

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| 1829_RPA1840_folP;__ | 0.03360 | 0.07320 | 0.04054 | -0.03371 |
| 1830_RPA1841_CDS;__2 | 0.14546 | 0.10820 | 0.00368 | 0.10269 |
| 1831_RPA1842_CDS;__2 | 0.51952 | 0.23251 | -0.37322 | 0.18198 |
| 1832_RPA1843_CDS;__2 | -0.07283 | -0.00390 | -0.04705 | -0.05249 |
| 1833_RPA1844_CDS;__2 | -0.08635 | 0.03853 | 0.05473 | -0.07992 |
| 1834_RPA1845_CDS;__2 | 0.01112 | 0.01472 | -0.04882 | -0.07339 |
| 1835_RPA1846_CDS;__2 | -0.00633 | -0.05386 | 0.19175 | 0.04552 |
| 1836_RPA1847_CDS;__2 | 0.22445 | -0.48292 | 0.06423 | -0.02234 |
| 1837_RPA1848_CDS;__2 | 0.08111 | 0.04755 | 0.15524 | -0.08149 |
| 1838_RPA1849_CDS;__2 | 0.12913 | -0.07317 | -0.09206 | 0.00970 |
| 1839_RPA1850_CDS;__2 | 0.13188 | -0.17645 | -0.03849 | 0.06374 |
| 1840_RPA1851_CDS;__2 | 0.02110 | 0.09733 | 0.11143 | 0.18133 |
| 1841_RPA1852_mucR;__ | 0.11617 | -0.49660 | -0.07707 | -0.11244 |
| 1842_RPA1853_CDS;__2 | 0.05818 | 0.00042 | 0.00421 | -0.21583 |
| 1843_RPA1854_CDS;__2 | 0.21028 | 0.03612 | 0.16060 | -0.00754 |
| 1844_RPA1855_CDS;__2 | 0.19577 | 0.11993 | 0.11570 | -0.16680 |
| 1845_RPA1856_CDS;__2 | -0.24465 | 0.03558 | 0.04788 | 0.04846 |
| 1846_RPA1857_CDS;__2 | 0.01444 | 0.03247 | 0.07697 | -0.17009 |
| 1847_RPA1858_CDS;__2 | 0.01108 | -0.02925 | -0.07926 | -0.08877 |
| 1848_RPA1859_CDS;__2 | -0.05555 | -0.00358 | -0.03711 | -0.15508 |
| 1849_RPA1860_CDS;__2 | 0.33701 | 0.11191 | 0.07024 | -0.32100 |
| 1850_RPA1861_CDS;__2 | 0.09788 | -0.49530 | -0.11695 | 0.06924 |
| 1851_RPA1862_CDS;__2 | -0.08281 | -0.08820 | -0.15377 | -0.02024 |
| 1852_RPA1863_CDS;__2 | 0.11710 | 0.05106 | -0.04064 | 0.11769 |
| 1853_RPA1864_CDS;__2 | -0.04577 | 0.03701 | 0.11456 | 0.06444 |
| 1854_RPA1865_CDS;__2 | -0.14653 | 0.08018 | -0.02029 | 0.07714 |
| 1855_RPA1866_CDS;__2 | -0.15582 | 0.06857 | 0.09208 | 0.02549 |
| 1856_RPA1867_CDS;__2 | -0.19616 | 0.07398 | -0.03813 | 0.03533 |
| 1857_RPA1868_CDS;__2 | 0.02583 | 0.10395 | 0.09713 | 0.17992 |
| 1858_RPA1869_CDS;__2 | -0.10712 | -0.00701 | 0.00292 | 0.11716 |
| 1859_RPA1870_CDS;__2 | 0.00561 | -0.19695 | -0.05559 | -0.05537 |
| 1860_RPA1871_CDS;__2 | -0.05524 | -0.08006 | 0.08449 | -0.03900 |
| 1861_RPA1872_thcC;__ | 0.09573 | -0.07724 | 0.02516 | -0.22614 |
| 1862_RPA1873_CDS;__2 | -0.12795 | 0.05846 | 0.03651 | 0.04692 |
| 1863_RPA1874_CDS;__2 | 0.42409 | 0.21147 | -0.18925 | 0.47645 |
| 1864_RPA1875_CDS;__2 | -0.01158 | 0.06639 | 0.06690 | 0.07723 |
| 1865_RPA1876_CDS;__2 | -0.16702 | 0.06929 | 0.06446 | 0.01701 |
| 1866_RPA1877_CDS;__2 | 0.19638 | -0.16102 | -0.04392 | 0.18675 |
| 1867_RPA1878_CDS;__2 | 0.08583 | 0.07666 | 0.02398 | 0.04456 |
| 1868_RPA1879_CDS;__2 | -0.04978 | 0.09241 | -0.07739 | -0.00653 |
| 1869_RPA1880_CDS;__2 | 0.02443 | -0.12063 | 0.00887 | -0.01361 |
| 1870_RPA1881_CDS;__2 | 0.01459 | 0.06592 | 0.11201 | -0.14659 |
| 1871_RPA1882_CDS;__2 | 0.15959 | 0.06834 | 0.08176 | -0.27708 |
| 1872_RPA1883_CDS;__2 | 0.14830 | 0.08279 | 0.03069 | 0.04160 |
| 1873_RPA1884_CDS;__2 | 0.01482 | -0.01404 | 0.04383 | -0.02842 |
| 1874_RPA1885_CDS;__2 | 0.04788 | 0.04856 | 0.08715 | 0.07676 |
| 1875_RPA1886_CDS;__2 | 0.27623 | -0.00329 | 0.24440 | -0.34900 |
| 1876_RPA1887_CDS;__2 | -0.14385 | -0.06473 | 0.09706 | -0.07594 |
| 1877_RPA1888_CDS;__2 | -0.25190 | -0.07183 | 0.11749 | -0.05449 |
| 1878_RPA1889_CDS;__2 | 0.42355 | -0.40132 | -0.05405 | -0.13018 |
| 1879_RPA1890_CDS;__2 | 1.14562 | 0.27841 | -0.11197 | 0.20315 |
| 1880_RPA1891_CDS;__2 | 0.16620 | -0.52820 | 0.02810 | 0.11992 |
| 1881_RPA1892_CDS;__2 | -0.08712 | 0.03311 | 0.19922 | 0.08603 |
| 1882_RPA1893_CDS;__2 | -0.12520 | -0.12845 | 0.22263 | 0.01382 |
| 1883_RPA1894_CDS;__2 | -0.22623 | 0.02574 | 0.07407 | -0.01026 |
| 1884_RPA1895_CDS;__2 | -0.20516 | -0.07725 | 0.04467 | 0.06821 |
| 1885_RPA1896_GTA_orf | -0.24851 | 0.03285 | 0.13634 | -0.15767 |

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| 1886_RPA1897_GTA_orf | 0.05709 | -0.09745 | 0.42556 | -0.38204 |
| 1887_RPA1898_GTA_orf | -0.05816 | 0.00562 | 0.06227 | -0.12420 |
| 1888_RPA1899_GTA_orf | -0.18959 | 0.12184 | -0.01258 | 0.11837 |
| 1889_RPA1900_GTA_orf | -0.01404 | 0.02311 | 0.02269 | 0.07391 |
| 1890_RPA1901_GTA_orf | 0.07719 | -0.11432 | 0.31705 | 0.06239 |
| 1891_RPA1902_GTA_orf | -0.26114 | -0.11138 | -0.05598 | 0.03882 |
| 1892_RPA1903_GTA_orf | -0.22722 | 0.08696 | 0.01477 | 0.10659 |
| 1893_RPA1904_CDS;__2 | 1.06710 | -0.29055 | -0.34217 | 0.01350 |
| 1894_RPA1905_GTA_orf | -0.15416 | 0.02901 | 0.13860 | -0.10442 |
| 1895_RPA1906_GTA_ofr | -0.07534 | -0.03101 | 0.28172 | 0.03655 |
| 1896_RPA1907_CDS;__2 | -0.24710 | -0.05120 | 0.11488 | 0.08623 |
| 1897_RPA1908_CDS;__2 | -0.17974 | 0.07505 | -0.00708 | 0.10129 |
| 1898_RPA1909_CDS;__2 | -0.02646 | -0.55354 | 0.04741 | -0.12708 |
| 1899_RPA1910_CDS;__2 | -0.19026 | 0.00831 | 0.13852 | 0.03772 |
| 1900_RPA1911_CDS;__2 | 0.08115 | -0.02982 | 0.14545 | -0.09287 |
| 1901_RPA1912_CDS;__2 | -0.06535 | 0.00904 | 0.20753 | -0.00972 |
| 1902_RPA1913_CDS;__2 | -0.00977 | 0.02887 | 0.18207 | -0.04322 |
| 1903_RPA1914_CDS;__2 | -0.02199 | -0.10626 | 0.17333 | 0.14861 |
| 1904_RPA1915_feuP;__ | -0.29770 | 0.03502 | 0.10996 | 0.04517 |
| 1905_RPA1916_feuQ;__ | -0.13018 | 0.05405 | 0.05249 | -0.04308 |
| 1906_RPA1917_lipA;__ | -0.10792 | 0.09987 | -0.07961 | 0.05155 |
| 1907_RPA1918_CDS;__2 | -0.12077 | 0.05905 | 0.06946 | 0.06357 |
| 1908_RPA1919_cycH;__ | -0.15259 | -0.04090 | 0.05829 | -0.01813 |
| 1909_RPA1920_cycJ;__ | -0.16705 | -0.05040 | 0.01103 | -0.01027 |
| 1910_RPA1921_cycK;__ | -0.29982 | 0.02637 | 0.00661 | 0.03223 |
| 1911_RPA1922_cycL;__ | -0.17832 | 0.01249 | 0.15847 | 0.08682 |
| 1912_RPA1923_aimE;__ | -0.24373 | 0.06239 | -0.04087 | -0.13587 |
| 1913_RPA1924_CDS;__2 | -0.18846 | 0.02346 | 0.19293 | -0.05894 |
| 1914_RPA1925_CDS;__2 | 0.23605 | 0.14689 | -0.05432 | 0.02613 |
| 1915_RPA1926_CDS;__2 | 0.30254 | 0.05463 | 0.20024 | 0.07788 |
| 1916_RPA1927_CDS;__2 | -0.06403 | 0.06524 | 0.11817 | -0.17732 |
| 1917_RPA1928_CDS;__2 | -0.22724 | -0.01488 | -0.14473 | -0.01024 |
| 1918_RPA1929_CDS;__2 | -0.20330 | 0.00135 | -0.12595 | -0.04812 |
| 1919_RPA1930_CDS;__2 | -0.17919 | -0.00919 | 0.00780 | -0.06617 |
| 1920_RPA1931_CDS;__2 | -0.09782 | 0.09093 | -0.03606 | 0.00646 |
| 1921_RPA1932_CDS;__2 | -0.01465 | 0.00000 | 0.03051 | 0.00797 |
| 1922_RPA1933_glnE;__ | -0.14302 | 0.02994 | 0.07417 | 0.05174 |
| 1923_RPA1934_CDS;__2 | 0.23230 | 0.12446 | 0.10560 | 0.25127 |
| 1924_RPA1935_CDS;__2 | -0.21161 | 0.03530 | 0.04671 | 0.04116 |
| 1925_RPA1936_CDS;__2 | -0.11262 | -0.11885 | -0.02137 | 0.01014 |
| 1926_RPA1937_CDS;__2 | 0.13874 | 0.11885 | 0.02975 | -0.16565 |
| 1927_RPA1938_CDS;__2 | -0.11654 | 0.06446 | 0.01645 | 0.01752 |
| 1928_RPA1939_CDS;__2 | -0.21933 | 0.07450 | 0.01770 | -0.01183 |
| 1929_RPA1940_CDS;__2 | -0.22965 | 0.07067 | 0.02043 | 0.05256 |
| 1930_RPA1941_CDS;__2 | -0.26718 | 0.05238 | 0.00751 | 0.01054 |
| 1931_RPA1942_CDS;__2 | -0.03087 | 0.09695 | -0.02523 | 0.00110 |
| 1932_RPA1943_panE;__ | -0.24513 | -0.06565 | -0.07959 | 0.03942 |
| 1933_RPA1944_oxlT;__ | -0.03983 | -0.11825 | 0.00010 | -0.09281 |
| 1934_RPA1945_CDS;__2 | -0.22043 | 0.08971 | -0.06031 | 0.05439 |
| 1935_RPA1946_CDS;__2 | -0.01630 | 0.10211 | 0.03647 | 0.11599 |
| 1936_RPA1947_pqqB;__ | 0.05187 | -0.37390 | -0.01034 | -0.02557 |
| 1937_RPA1948_pqqC;__ | -0.17671 | 0.02524 | 0.09347 | 0.03058 |
| 1938_RPA1949_pqqD;__ | -0.14741 | -0.14477 | 0.10648 | 0.03195 |
| 1939_RPA1950_pqqE;__ | -0.10246 | -0.06628 | 0.11782 | -0.08572 |
| 1940_RPA1951_CDS;__2 | -0.06352 | 0.02841 | 0.01119 | 0.07104 |
| 1941_RPA1952_CDS;__2 | -0.09854 | 0.10152 | -0.10905 | -0.05350 |
| 1942_RPA1953_CDS;__2 | -0.05795 | -0.01045 | 0.06807 | -0.01516 |

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|-----------------------|----------|----------|----------|----------|
| 1943_RPA1954_CDS;__2 | 0.07397 | -0.04327 | 0.18181 | 0.14415 |
| 1944_RPA1955_CDS;__2 | -0.30148 | 0.08366 | -0.05280 | 0.03769 |
| 1945_RPA1956_CDS;__2 | -0.16379 | 0.04455 | 0.01018 | 0.02019 |
| 1946_RPA1957_CDS;__2 | -0.12307 | -0.00258 | -0.04915 | 0.01580 |
| 1947_RPA1958_CDS;__2 | -0.05765 | 0.01226 | -0.10536 | -0.21188 |
| 1948_RPA1959_CDS;__2 | -0.06370 | 0.07075 | 0.07606 | -0.01822 |
| 1949_RPA1960_CDS;__2 | -0.07235 | -0.00308 | 0.25458 | -0.18097 |
| 1950_RPA1961_CDS;__2 | -0.14923 | 0.03106 | 0.07979 | -0.03064 |
| 1951_RPA1962_CDS;__2 | 0.20132 | 0.11453 | 0.11952 | -0.64522 |
| 1952_RPA1963_CDS;__2 | 0.10075 | -0.45756 | -0.16406 | -0.05142 |
| 1953_RPA1964_CDS;__2 | 0.06470 | -0.00169 | 0.04842 | -0.08783 |
| 1954_RPA1965_CDS;__2 | -0.09591 | 0.05261 | 0.07656 | -0.02948 |
| 1955_RPA1966_CDS;__2 | 0.07889 | 0.10065 | -0.00975 | 0.08896 |
| 1956_RPA1967_CDS;__2 | -0.05175 | 0.06079 | 0.12766 | -0.02399 |
| 1957_RPA1968_CDS;__2 | -0.13428 | 0.03377 | 0.07858 | -0.01025 |
| 1958_RPA1969_yjbN;__ | -0.07463 | -0.09183 | 0.09624 | -0.14279 |
| 1959_RPA1970_CDS;__2 | -0.12478 | 0.00261 | 0.02925 | -0.05099 |
| 1960_RPA1971_CDS;__2 | 0.17805 | -0.07096 | -0.09619 | 0.12191 |
| 1961_RPA1972_CDS;__2 | -0.15405 | -0.23336 | 0.01250 | 0.06887 |
| 1962_RPA1973_CDS;__2 | -0.07837 | 0.06866 | 0.04863 | 0.08526 |
| 1963_RPA1974_CDS;__2 | -0.00086 | 0.04443 | 0.08362 | -0.14115 |
| 1964_RPA1975_CDS;__2 | -0.23002 | 0.11319 | -0.23926 | -0.12391 |
| 1965_RPA1976_CDS;__2 | -0.23073 | -0.00468 | -0.10563 | 0.02355 |
| 1966_RPA1977_CDS;__2 | 0.12640 | 0.07020 | 0.12408 | 0.07140 |
| 1967_RPA1978_moaA;__ | -0.08207 | -0.02575 | -0.02918 | 0.11237 |
| 1968_RPA1979_CDS;__2 | -0.02172 | -0.12383 | -0.11679 | -0.04737 |
| 1969_RPA1980_cbbZ;__ | -0.07178 | 0.08849 | -0.08030 | -0.02402 |
| 1970_RPA1981_cbbI,_r | 0.09291 | 0.04690 | 0.12977 | 0.07042 |
| 1971_RPA1982_CDS;__2 | -0.10242 | 0.02141 | -0.05218 | 0.07880 |
| 1972_RPA1983_gor;__2 | -0.18258 | 0.08165 | -0.01644 | -0.01241 |
| 1973_RPA1984_aroG;__ | -0.23083 | 0.06036 | -0.00068 | -0.04364 |
| 1974_RPA1985_CDS;__2 | -0.17470 | -0.02506 | -0.05154 | 0.04320 |
| 1975_RPA1986_nadE;__ | -0.19342 | 0.05024 | 0.01289 | -0.05045 |
| 1976_RPA1987_CDS;__2 | 0.35663 | 0.13074 | -0.08531 | -0.09052 |
| 1977_RPA1988_CDS;__2 | 0.33869 | -0.16817 | -0.00355 | -0.03842 |
| 1978_RPA1989_CDS;__2 | 0.33755 | 0.08491 | 0.04821 | 0.01433 |
| 1979_RPA1990_CDS;__2 | -0.01263 | -0.11586 | -0.03760 | 0.01760 |
| 1980_RPA1991_CDS;__2 | 0.15917 | -0.46688 | -0.16831 | -0.06867 |
| 1981_RPA1992_CDS;__2 | 0.49558 | 0.17409 | 0.07560 | -0.11430 |
| 1982_RPA1993_CDS;__2 | 0.64691 | 0.15311 | -0.21505 | 0.11988 |
| 1983_RPA1994_CDS;__2 | 0.19186 | -0.18672 | 0.13594 | -0.04033 |
| 1984_RPA1995_CDS;__2 | -0.30053 | 0.09520 | -0.05964 | 0.01481 |
| 1985_RPA1996_CDS;__2 | -0.12451 | 0.01535 | 0.17349 | 0.06283 |
| 1986_RPA1997_cysS;__ | -0.15978 | 0.03809 | 0.04074 | 0.01766 |
| 1987_RPA1998_CDS;__2 | -0.05621 | -0.19553 | 0.46488 | 0.10487 |
| 1988_RPA1999_CDS;__2 | -0.06403 | 0.00845 | -0.05830 | 0.01357 |
| 1989_RPA2000_CDS;__2 | -0.24703 | 0.05972 | -0.05830 | -0.03633 |
| 1990_RPA2001_leuA;__ | -0.07002 | -0.14640 | 0.05355 | 0.01152 |
| 1991_RPA2002_CDS;__2 | -0.12069 | 0.03719 | 0.08507 | 0.05036 |
| 1992_RPA2003_CDS;__2 | -0.08463 | -0.06999 | -0.02234 | 0.00187 |
| 1993_RPA2004_CDS;__2 | 0.25973 | 0.16906 | -0.01834 | -0.04198 |
| 1994_RPA2005_CDS;__2 | -0.07666 | -0.49585 | -0.17513 | -0.00923 |
| 1995_RPA2006_psd;__2 | -0.19898 | 0.02901 | 0.02889 | -0.00882 |
| 1996_RPA2007_pssA;__ | -0.13706 | 0.02038 | 0.12364 | 0.11460 |
| 1997_RPA2008_CDS;__2 | 0.00219 | 0.00821 | -0.04367 | 0.11126 |
| 1998_RPA2009_CDS;__2 | -0.12559 | -0.18672 | -0.18246 | -0.03930 |
| 1999_RPA2010_motB1;__ | -0.23114 | -0.00122 | -0.11313 | -0.00878 |

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| 2000_RPA2011_CDS;__2 | -0.06118 | 0.04157 | 0.09062 | -0.03213 |
| 2001_RPA2012_CDS;__2 | -0.06024 | 0.08385 | -0.18103 | -0.04283 |
| 2002_RPA2013_CDS;__2 | -0.09407 | -0.05608 | -0.00750 | -0.05323 |
| 2003_RPA2014_CDS;__2 | -0.06794 | 0.06272 | 0.05896 | 0.14087 |
| 2004_RPA2015_CDS;__2 | 0.36561 | -0.05555 | 0.04210 | 0.01819 |
| 2005_RPA2016_CDS;__2 | -0.01750 | 0.07567 | 0.05991 | 0.03191 |
| 2006_RPA2017_CDS;__2 | -0.05130 | 0.05241 | 0.12650 | -0.21897 |
| 2007_RPA2018_CDS;__2 | -0.26193 | 0.09034 | -0.09064 | 0.01045 |
| 2008_RPA2019_CDS;__2 | -0.17728 | 0.07312 | -0.02956 | 0.04298 |
| 2009_RPA2020_CDS;__2 | -0.15106 | -0.01177 | -0.03582 | -0.03463 |
| 2010_RPA2021_CDS;__2 | 0.02368 | 0.04551 | 0.18347 | -0.06140 |
| 2011_RPA2022_CDS;__2 | 0.00908 | 0.06628 | 0.03796 | -0.04488 |
| 2012_RPA2023_CDS;__2 | 0.10067 | -0.14896 | -0.06057 | 0.24597 |
| 2013_RPA2024_CDS;__2 | -0.05693 | 0.01900 | 0.17677 | -0.00740 |
| 2014_RPA2025_CDS;__2 | 0.18766 | 0.10316 | 0.06726 | 0.05361 |
| 2015_RPA2026_CDS;__2 | 0.11538 | 0.10662 | -0.01068 | -0.00004 |
| 2016_RPA2027_CDS;__2 | -0.16423 | 0.07766 | -0.03824 | 0.03627 |
| 2017_RPA2028_CDS;__2 | 0.16287 | 0.06141 | 0.00966 | -0.01750 |
| 2018_RPA2029_serB;__ | -0.14253 | 0.05912 | 0.05755 | 0.09959 |
| 2019_RPA2030_miaA;__ | 0.12336 | -0.04558 | 0.13678 | 0.06929 |
| 2020_RPA2031_ilvI;__ | -0.17729 | -0.00108 | -0.11432 | -0.08357 |
| 2021_RPA2032_ilvH;__ | -0.20138 | -0.00473 | -0.09397 | -0.01782 |
| 2022_RPA2033_CDS;__2 | -0.17298 | -0.01944 | -0.01902 | -0.27464 |
| 2023_RPA2034_CDS;__2 | -0.12147 | -0.02911 | 0.25616 | 0.07299 |
| 2024_RPA2035_ilvC;__ | -0.34406 | -0.06551 | -0.14232 | 0.02970 |
| 2025_RPA2036_CDS;__2 | 0.01296 | 0.05721 | 0.05178 | 0.02103 |
| 2026_RPA2037_CDS;__2 | -0.18827 | 0.09372 | -0.08719 | 0.00081 |
| 2027_RPA2038_CDS;__2 | 0.06231 | -0.54299 | 0.04742 | 0.14138 |
| 2028_RPA2039_CDS;__2 | 0.08799 | 0.11375 | 0.01370 | -0.05989 |
| 2029_RPA2040_CDS;__2 | 0.17454 | -0.43046 | -0.13330 | 0.19826 |
| 2030_RPA2041_CDS;__2 | -0.11905 | -0.00930 | 0.19099 | -0.08650 |
| 2031_RPA2042_CDS;__2 | 0.00765 | -0.04879 | 0.16658 | -0.00474 |
| 2032_RPA2043_CDS;__2 | -0.06663 | 0.08467 | 0.01623 | 0.05947 |
| 2033_RPA2044_CDS;__2 | -0.00225 | 0.05113 | 0.11126 | 0.07172 |
| 2034_RPA2045_bioB;__ | -0.25252 | 0.06306 | 0.04473 | -0.02164 |
| 2035_RPA2046_leuI;__ | -0.23064 | 0.07172 | -0.07797 | 0.02034 |
| 2036_RPA2047_dctP;__ | -0.30558 | -0.00593 | -0.07343 | 0.02849 |
| 2037_RPA2048_dctQ;__ | -0.13470 | 0.05066 | 0.04949 | 0.05852 |
| 2038_RPA2049_dctM;__ | -0.16219 | -0.31036 | -0.15563 | -0.08257 |
| 2039_RPA2050_CDS;__2 | -0.25886 | 0.00852 | -0.08711 | -0.01218 |
| 2040_RPA2051_CDS;__2 | -0.13675 | 0.03063 | 0.13370 | 0.02615 |
| 2041_RPA2052_CDS;__2 | 0.12007 | 0.06763 | 0.00099 | 0.05144 |
| 2042_RPA2053_CDS;__2 | 0.09306 | 0.08942 | -0.02033 | 0.06959 |
| 2043_RPA2054_CDS;__2 | 0.11197 | -0.47386 | -0.08693 | -0.04421 |
| 2044_RPA2055_CDS;__2 | -0.05323 | 0.06533 | 0.09345 | 0.04691 |
| 2045_RPA2056_czcA;__ | -0.06351 | 0.06341 | 0.03978 | -0.01339 |
| 2046_RPA2057_CDS;__2 | -0.00307 | 0.05824 | -0.11492 | 0.06505 |
| 2047_RPA2058_CDS;__2 | 0.26698 | 0.05460 | 0.29868 | -0.27013 |
| 2048_RPA2059_CDS;__2 | 0.25062 | 0.10062 | 0.00428 | 0.07158 |
| 2049_RPA2060_nosR;__ | 0.09537 | -0.02386 | 0.01522 | -0.04275 |
| 2050_RPA2061_nosZ;__ | -0.12545 | 0.00466 | -0.02838 | -0.06400 |
| 2051_RPA2062_nosD;__ | -0.07983 | -0.23723 | 0.02652 | 0.05752 |
| 2052_RPA2063_nosF;__ | -0.00049 | 0.03341 | 0.03290 | -0.00927 |
| 2053_RPA2064_nosY;__ | -0.05643 | -0.08308 | 0.19436 | -0.03942 |
| 2054_RPA2065_nosL;__ | 0.00952 | 0.05224 | 0.08279 | 0.02891 |
| 2055_RPA2066_nosX;__ | 0.12222 | 0.04543 | 0.15549 | -0.16283 |
| 2056_RPA2067_CDS;__2 | -0.00331 | -0.05458 | 0.09430 | -0.05472 |

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|----------------------|----------|----------|----------|----------|
| 2057_RPA2068_CDS;__2 | 0.21797 | -0.24525 | 0.25348 | -0.26376 |
| 2058_RPA2069_CDS;__2 | 0.17654 | -0.24555 | 0.14175 | 0.04167 |
| 2059_RPA2070_CDS;__2 | 0.01572 | -0.02126 | 0.06247 | -0.01201 |
| 2060_RPA2071_CDS;__2 | 0.09292 | 0.02914 | -0.12795 | 0.06691 |
| 2061_RPA2072_CDS;__2 | -0.17504 | -0.00963 | -0.04294 | 0.06321 |
| 2062_RPA2073_CDS;__2 | -0.08245 | 0.08900 | 0.02042 | 0.00773 |
| 2063_RPA2074_CDS;__2 | -0.02187 | 0.03630 | 0.14444 | -0.10854 |
| 2064_RPA2075_CDS;__2 | 0.12828 | 0.09921 | 0.05116 | 0.03643 |
| 2065_RPA2076_CDS;__2 | 0.18083 | 0.12384 | 0.07743 | -0.07761 |
| 2066_RPA2077_CDS;__2 | 0.32976 | -0.11352 | -0.06157 | 0.04044 |
| 2067_RPA2078_CDS;__2 | 0.05471 | 0.06178 | -0.20134 | -0.01454 |
| 2068_RPA2079_CDS;__2 | 0.17274 | 0.00841 | -0.04591 | 0.01964 |
| 2069_RPA2080_CDS;__2 | -0.10337 | 0.04326 | -0.06916 | 0.04107 |
| 2070_RPA2081_CDS;__2 | 0.17306 | 0.07359 | 0.06484 | 0.09172 |
| 2071_RPA2082_cobA;__ | -0.10968 | 0.06494 | 0.10286 | 0.05933 |
| 2072_RPA2083_cobB;__ | -0.00689 | 0.08205 | 0.11852 | -0.16340 |
| 2073_RPA2084_cobM;__ | -0.19398 | 0.07490 | -0.07594 | -0.01305 |
| 2074_RPA2085_CbiG;__ | 0.32228 | 0.16861 | -0.05944 | -0.09088 |
| 2075_RPA2086_cobL;__ | -0.00260 | 0.04414 | 0.13045 | 0.07095 |
| 2076_RPA2087_cobK;__ | -0.01718 | 0.02096 | 0.12025 | -0.14526 |
| 2077_RPA2088_cobJ;__ | 0.04161 | 0.09080 | -0.02792 | 0.02596 |
| 2078_RPA2089_cobI;__ | 0.05130 | -0.08989 | 0.09711 | 0.06002 |
| 2079_RPA2090_cobH;__ | -0.11567 | 0.06407 | -0.02414 | -0.01464 |
| 2080_RPA2091_CDS;__2 | 0.04911 | 0.14971 | -0.12280 | 0.00428 |
| 2081_RPA2092_CDS;__2 | 0.10165 | -0.01971 | 0.20512 | 0.07108 |
| 2082_RPA2093_CDS;__2 | 0.21905 | -0.09964 | 0.02250 | 0.02532 |
| 2083_RPA2094_cobT;__ | 0.08235 | 0.07175 | -0.05558 | -0.04862 |
| 2084_RPA2095_CDS;__2 | -0.03340 | 0.01109 | 0.24712 | -0.13025 |
| 2085_RPA2096_cobQ;__ | -0.03627 | -0.02615 | 0.07190 | 0.02983 |
| 2086_RPA2097_cobF;__ | -0.03165 | 0.03036 | 0.12471 | -0.00986 |
| 2087_RPA2098_CDS;__2 | 0.22440 | 0.05884 | 0.20430 | -0.34406 |
| 2088_RPA2099_CDS;__2 | 0.13802 | -0.20642 | 0.05175 | -0.00367 |
| 2089_RPA2100_CDS;__2 | -0.18908 | -0.11240 | -0.11948 | -0.06306 |
| 2090_RPA2101_CDS;__2 | -0.05309 | -0.01550 | 0.02275 | -0.04054 |
| 2091_RPA2102_CDS;__2 | 0.33907 | 0.02549 | 0.02100 | 0.11054 |
| 2092_RPA2103_CDS;__2 | 0.10732 | -0.02079 | 0.07366 | -0.08818 |
| 2093_RPA2104_CDS;__2 | -0.14571 | 0.01730 | 0.09441 | 0.02231 |
| 2094_RPA2105_CDS;__2 | -0.09979 | 0.06186 | -0.19746 | 0.00909 |
| 2095_RPA2106_CDS;__2 | 0.05192 | 0.03774 | -0.02113 | 0.00439 |
| 2096_RPA2107_CDS;__2 | 0.09630 | 0.03120 | 0.00907 | 0.00940 |
| 2097_RPA2108_CDS;__2 | 0.38278 | -0.02530 | -0.01778 | 0.19653 |
| 2098_RPA2109_CDS;__2 | 0.14895 | 0.11755 | 0.01547 | 0.00562 |
| 2099_RPA2110_CDS;__2 | 0.34762 | -0.08781 | 0.09295 | 0.00264 |
| 2100_RPA2111_CDS;__2 | 0.04428 | 0.07250 | 0.10025 | -0.06167 |
| 2101_RPA2112_nrtA;__ | -0.15629 | -0.15709 | -0.08269 | -0.04986 |
| 2102_RPA2113_nrtB;__ | 0.02897 | -0.48462 | -0.15878 | 0.03285 |
| 2103_RPA2114_nrtC;__ | -0.13711 | 0.07137 | -0.05393 | -0.00039 |
| 2104_RPA2115_cynS;__ | -0.18869 | 0.07869 | -0.11862 | -0.02380 |
| 2105_RPA2116_CDS;__2 | -0.18700 | -0.06818 | -0.27003 | -0.10217 |
| 2106_RPA2117_CDS;__2 | 0.01352 | 0.10452 | 0.05506 | -0.13449 |
| 2107_RPA2118_CDS;__2 | -0.04095 | 0.07774 | 0.03970 | 0.10243 |
| 2108_RPA2119_CDS;__2 | -0.01704 | -0.02600 | 0.03893 | 0.01850 |
| 2109_RPA2120_CDS;__2 | 0.04541 | -0.17314 | -0.14980 | 0.06069 |
| 2110_RPA2121_CDS;__2 | 0.27762 | 0.03728 | 0.03298 | 0.15954 |
| 2111_RPA2122_CDS;__2 | 0.09341 | -0.11922 | 0.16986 | -0.08349 |
| 2112_RPA2123_CDS;__2 | 0.05223 | 0.03671 | 0.14234 | -0.10143 |
| 2113_RPA2124_CDS;__2 | -0.00751 | 0.08462 | -0.03169 | -0.09145 |

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|------------------------|----------|----------|----------|----------|
| 2114_RPA2125_CDS;__2 | -0.06173 | -0.07857 | 0.22999 | 0.10080 |
| 2115_RPA2126_CDS;__2 | -0.08721 | 0.05580 | 0.05978 | -0.19099 |
| 2116_RPA2127_exbB;__ | 0.04834 | -0.06885 | 0.15734 | 0.03167 |
| 2117_RPA2128_exbD;__ | -0.11270 | -0.04529 | 0.06012 | -0.05110 |
| 2118_RPA2129_CDS;__2 | 0.03587 | -0.05210 | 0.21221 | 0.05318 |
| 2119_RPA2130_CDS;__2 | 0.10133 | -0.01690 | 0.14030 | 0.03290 |
| 2120_RPA2131_CDS;__2 | 0.27713 | 0.03391 | -0.01135 | 0.08992 |
| 2121_RPA2132_CDS;__2 | -0.05623 | 0.08667 | -0.06193 | 0.00171 |
| 2122_RPA2133_CDS;__2 | 0.25171 | -0.13339 | 0.08647 | 0.03532 |
| 2123_RPA2134_CDS;__2 | 0.40179 | 0.07953 | -0.38081 | -0.17840 |
| 2124_RPA2135_CDS;__2 | 0.00168 | 0.07146 | 0.09097 | -0.00627 |
| 2125_RPA2136_CDS;__2 | -0.10666 | 0.11914 | -0.21142 | -0.03422 |
| 2126_RPA2137_CDS;__2 | 0.00844 | -0.01144 | 0.01636 | 0.08058 |
| 2127_RPA2138_CDS;__2 | -0.11677 | 0.03724 | -0.10161 | 0.07786 |
| 2128_RPA2139_CDS;__2 | 0.08268 | -0.10300 | 0.04551 | 0.16571 |
| 2129_RPA2140_CDS;__2 | -0.13353 | -0.14913 | 0.02181 | 0.02312 |
| 2130_RPA2141_CDS;__2 | -0.21068 | -0.00618 | -0.02310 | 0.04933 |
| 2131_RPA2142_CDS;__2 | -0.17719 | 0.05606 | 0.01512 | -0.02774 |
| 2132_RPA2143_CDS;__2 | -0.11085 | 0.07281 | 0.01921 | 0.03260 |
| 2133_RPA2144_CDS;__2 | -0.04327 | -0.11308 | -0.01355 | -0.08733 |
| 2134_RPA2145_CDS;__2 | -0.02914 | 0.06284 | 0.10825 | 0.08815 |
| 2135_RPA2146_CDS;__2 | -0.19339 | -0.10860 | 0.05624 | 0.00450 |
| 2136_RPA2147_CDS;__2 | -0.08030 | 0.01081 | 0.16832 | 0.08930 |
| 2137_RPA2148_CDS;__2 | -0.16911 | 0.02903 | 0.09325 | 0.05150 |
| 2138_RPA2149_CDS;__2 | 0.05287 | -0.06294 | 0.01505 | 0.06419 |
| 2139_RPA2150_CDS;__2 | 0.05185 | -0.18275 | 0.08216 | 0.07896 |
| 2140_RPA2151_CDS;__2 | -0.11137 | -0.01348 | 0.18401 | -0.01488 |
| 2141_RPA2152_CDS;__2 | 0.02589 | -0.05398 | 0.04700 | -0.07702 |
| 2142_RPA2153_CDS;__2 | -0.27746 | 0.06417 | -0.07228 | -0.02658 |
| 2143_RPA2154_CDS;__2 | 0.45774 | -0.04447 | -0.11738 | -0.14338 |
| 2144_RPA2155_ilvD;__ | -0.00377 | -0.03115 | 0.09188 | -0.00233 |
| 2145_RPA2156_CDS;__2 | -0.07553 | 0.11465 | 0.00062 | 0.15880 |
| 2146_RPA2157_CDS;__2 | -0.10694 | 0.13719 | -0.14377 | 0.03755 |
| 2147_RPA2158_CDS;__2 | 0.15502 | -0.26248 | -0.15710 | 0.08932 |
| 2148_RPA2159_CDS;__2 | 0.40101 | 0.26235 | -0.29765 | -0.23433 |
| 2149_RPA2160_CDS;__2 | -0.01499 | 0.03349 | -0.02621 | 0.10128 |
| 2150_RPA2161_CDS;__2 | -0.00325 | -0.08437 | -0.14875 | 0.07559 |
| 2151_RPA2162_CDS;__2 | -0.00866 | 0.08148 | 0.02996 | -0.04279 |
| 2152_RPA2163_CDS;__2 | 0.05277 | -0.00680 | -0.00631 | -0.02375 |
| 2153_RPA2164_groEL;__2 | -0.36356 | 0.06470 | -0.33331 | -0.04947 |
| 2154_RPA2165_CDS;__2 | -0.10686 | 0.04605 | -0.17156 | -0.09066 |
| 2155_RPA2166_CDS;__2 | 0.36807 | 0.14463 | -0.06687 | -0.16214 |
| 2156_RPA2167_CDS;__2 | 0.04235 | 0.06133 | 0.11186 | 0.09199 |
| 2157_RPA2168_CDS;__2 | -0.08044 | 0.02083 | 0.14954 | 0.04986 |
| 2158_RPA2169_CDS;__2 | -0.01065 | -0.11852 | 0.14129 | 0.06376 |
| 2159_RPA2170_CDS;__2 | 0.05691 | -0.06285 | -0.01189 | 0.05315 |
| 2160_RPA2171_CDS;__2 | 0.04040 | -0.05032 | 0.19154 | 0.08910 |
| 2161_RPA2172_CDS;__2 | -0.28704 | 0.06331 | -0.02131 | 0.02518 |
| 2162_RPA2173_CDS;__2 | 0.22070 | 0.22004 | -0.20012 | 0.16405 |
| 2163_RPA2174_CDS;__2 | -0.18050 | -0.04985 | -0.08883 | 0.06103 |
| 2164_RPA2175_CDS;__2 | -0.19547 | 0.07321 | 0.06937 | 0.15125 |
| 2165_RPA2176_CDS;__2 | -0.19705 | 0.05874 | -0.00281 | -0.01433 |
| 2166_RPA2177_CDS;__2 | -0.18578 | 0.06634 | -0.01603 | 0.05719 |
| 2167_RPA2178_CDS;__2 | -0.21015 | -0.00156 | 0.18197 | 0.07216 |
| 2168_RPA2179_CDS;__2 | 0.06643 | 0.06043 | 0.21452 | -0.29262 |
| 2169_RPA2180_CDS;__2 | 0.32346 | -0.13051 | 0.17818 | -0.18482 |
| 2170_RPA2181_CDS;__2 | -0.17061 | 0.03532 | 0.11586 | 0.06140 |

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| 2171_RPA2182_CDS;__2 | 0.00769 | 0.04523 | 0.14108 | 0.11141 |
| 2172_RPA2183_CDS;__2 | 0.02076 | -0.21098 | -0.02493 | -0.05337 |
| 2173_RPA2184_CDS;__2 | -0.01817 | -0.32828 | -0.01602 | -0.14559 |
| 2174_RPA2185_CDS;__2 | -0.23596 | 0.05366 | -0.02924 | -0.03642 |
| 2175_RPA2186_CDS;__2 | -0.28219 | 0.06150 | -0.05880 | -0.05565 |
| 2176_RPA2187_CDS;__2 | 0.09590 | -0.24548 | 0.07006 | 0.05497 |
| 2177_RPA2188_CDS;__2 | 0.01078 | 0.15515 | -0.04274 | 0.02896 |
| 2178_RPA2189_CDS;__2 | -0.05560 | 0.05584 | 0.08918 | 0.06972 |
| 2179_RPA2190_CDS;__2 | -0.22730 | 0.06588 | 0.04477 | 0.08307 |
| 2180_RPA2191_CDS;__2 | -0.09083 | -0.22281 | -0.04711 | 0.04031 |
| 2181_RPA2192_CDS;__2 | 0.07327 | -0.51253 | 0.06573 | -0.05559 |
| 2182_RPA2193_CDS;__2 | -0.27245 | 0.05638 | -0.01238 | 0.04423 |
| 2183_RPA2194_CDS;__2 | -0.10288 | -0.01304 | -0.07780 | 0.06636 |
| 2184_RPA2195_CDS;__2 | 0.03536 | -0.13141 | 0.11931 | -0.06335 |
| 2185_RPA2196_CDS;__2 | 0.01136 | -0.25585 | 0.05706 | 0.08763 |
| 2186_RPA2197_CDS;__2 | -0.00242 | 0.05899 | -0.11542 | 0.04472 |
| 2187_RPA2198_CDS;__2 | -0.03985 | 0.06768 | 0.03738 | 0.00548 |
| 2188_RPA2199_CDS;__2 | -0.27996 | 0.00605 | -0.03717 | -0.04486 |
| 2189_RPA2200_guaB;__ | -0.23360 | 0.09330 | -0.07721 | 0.03186 |
| 2190_RPA2201_CDS;__2 | -0.15563 | 0.08299 | -0.08679 | -0.06399 |
| 2191_RPA2202_CDS;__2 | -0.13654 | 0.03856 | 0.10156 | 0.08545 |
| 2192_RPA2203_guaA;__ | -0.20900 | 0.12318 | -0.09965 | 0.09309 |
| 2193_RPA2204_CDS;__2 | 0.28734 | 0.10828 | 0.00630 | -0.00310 |
| 2194_RPA2205_CDS;__2 | 0.53880 | -0.37135 | -0.29183 | -0.13570 |
| 2195_RPA2206_CDS;__2 | 0.65249 | 0.13156 | -0.15028 | 0.10649 |
| 2196_RPA2207_CDS;__2 | 0.23997 | -0.06443 | 0.07721 | 0.04618 |
| 2197_RPA2208_parB;__ | 0.13296 | -0.13956 | 0.13238 | 0.00981 |
| 2198_RPA2209_CDS;__2 | 0.19189 | 0.06939 | 0.05032 | -0.01701 |
| 2199_RPA2210_CDS;__2 | 0.17384 | 0.07885 | 0.03108 | 0.03268 |
| 2200_RPA2211_CDS;__2 | 0.28770 | -0.02061 | -0.14175 | 0.08214 |
| 2201_RPA2212_CDS;__2 | 0.38664 | 0.05585 | 0.04709 | 0.03242 |
| 2202_RPA2213_CDS;__2 | 0.34996 | 0.18286 | -0.03872 | 0.00714 |
| 2203_RPA2214_CDS;__2 | 0.20507 | -0.02849 | -0.03084 | -0.02674 |
| 2204_RPA2215_CDS;__2 | 0.20192 | 0.12138 | 0.00443 | -0.02657 |
| 2205_RPA2216_CDS;__2 | 0.26566 | 0.02218 | -0.02767 | -0.04426 |
| 2206_RPA2217_CDS;__2 | 0.38791 | -0.45028 | -0.03060 | -0.08091 |
| 2207_RPA2218_CDS;__2 | 0.19836 | -0.19066 | -0.05703 | -0.04217 |
| 2208_RPA2219_CDS;__2 | 0.37996 | 0.10286 | -0.02066 | -0.01134 |
| 2209_RPA2220_CDS;__2 | 0.77235 | -0.04243 | -0.14108 | 0.00061 |
| 2210_RPA2221_CDS;__2 | 0.14904 | 0.06892 | 0.08343 | -0.08610 |
| 2211_RPA2222_CDS;__2 | 0.38907 | 0.01238 | 0.11774 | -0.11094 |
| 2212_RPA2223_CDS;__2 | 0.32942 | 0.05884 | -0.18387 | -0.08456 |
| 2213_RPA2224_trbI;__ | 0.31255 | 0.02661 | 0.08304 | -0.09352 |
| 2214_RPA2225_trbG;__ | 0.36122 | -0.43981 | -0.11026 | 0.00794 |
| 2215_RPA2226_trbF;__ | 0.29771 | 0.06878 | -0.08603 | 0.07810 |
| 2216_RPA2227_trbL;__ | 0.31933 | 0.16419 | -0.03057 | 0.04186 |
| 2217_RPA2228_trbK;__ | 0.42671 | 0.15467 | 0.09092 | -0.15556 |
| 2218_RPA2229_trbJ;__ | 0.18770 | 0.10654 | -0.20133 | -0.12695 |
| 2219_RPA2230_trbE;__ | 0.15957 | 0.12307 | -0.01270 | 0.07235 |
| 2220_RPA2231_trbD;__ | 0.08663 | -0.02577 | 0.06294 | -0.00228 |
| 2221_RPA2232_trbC;__ | -0.00118 | 0.15744 | -0.26276 | -0.06536 |
| 2222_RPA2233_trbB;__ | 0.15820 | 0.15102 | -0.03913 | -0.00236 |
| 2223_RPA2234_CDS;__2 | 0.40325 | 0.06634 | 0.08335 | 0.27473 |
| 2224_RPA2235_traG;__ | 0.34731 | -0.15098 | -0.06948 | -0.03918 |
| 2225_RPA2236_CDS;__2 | 0.40465 | 0.14352 | 0.06061 | -0.09147 |
| 2226_RPA2237_CDS;__2 | 0.51774 | 0.16694 | -0.01184 | -0.00002 |
| 2227_RPA2238_CDS;__2 | 0.41105 | -0.09654 | -0.01873 | -0.15990 |

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| 2228_RPA2239_CDS;__2 | 0.20385 | 0.14082 | -0.03203 | 0.04667 |
| 2229_RPA2240_CDS;__2 | 0.17376 | 0.03424 | 0.02765 | -0.17598 |
| 2230_RPA2241_CDS;__2 | 0.38699 | 0.05783 | 0.04948 | 0.11844 |
| 2231_RPA2242_CDS;__2 | 0.50656 | 0.07156 | -0.11465 | -0.05556 |
| 2232_RPA2243_CDS;__2 | 0.85220 | 0.15776 | 0.09558 | -0.29825 |
| 2233_RPA2244_CDS;__2 | -0.23826 | 0.00425 | -0.02182 | -0.04865 |
| 2234_RPA2245_CDS;__2 | 0.70442 | -0.36747 | -0.23176 | 0.16158 |
| 2235_RPA2246_CDS;__2 | 0.78004 | 0.29918 | -0.03539 | 0.25069 |
| 2236_RPA2247_CDS;__2 | 0.25675 | 0.14612 | -0.06884 | 0.08970 |
| 2237_RPA2248_CDS;__2 | 0.39321 | 0.13920 | -0.00087 | 0.01503 |
| 2238_RPA2249_CDS;__2 | 0.26657 | -0.01532 | -0.01880 | 0.02332 |
| 2239_RPA2250_CDS;__2 | 0.44353 | 0.08397 | -0.37551 | 0.08786 |
| 2240_RPA2251_CDS;__2 | 0.15001 | -0.05271 | -0.09059 | 0.04323 |
| 2241_RPA2252_CDS;__2 | 0.18828 | -0.09962 | 0.05194 | -0.11499 |
| 2242_RPA2253_CDS;__2 | 0.48932 | 0.04752 | -0.05679 | -0.07665 |
| 2243_RPA2254_CDS;__2 | 0.05370 | 0.09671 | -0.01323 | 0.04640 |
| 2244_RPA2255_CDS;__2 | 0.44136 | -0.19897 | -0.12695 | -0.07765 |
| 2245_RPA2256_CDS;__2 | -0.00988 | 0.04487 | 0.04242 | 0.07482 |
| 2246_RPA2257_arsC;__ | 0.06154 | 0.02685 | 0.11793 | 0.10989 |
| 2247_RPA2258_arsB;__ | 0.10335 | 0.05777 | 0.11048 | -0.01392 |
| 2248_RPA2259_arsH;__ | 0.32998 | 0.11590 | -0.02490 | -0.01459 |
| 2249_RPA2260_CDS;__2 | 0.60016 | -0.00296 | -0.08659 | -0.04892 |
| 2250_RPA2261_CDS;__2 | 0.34183 | 0.12269 | -0.11781 | 0.17380 |
| 2251_RPA2262_gltS;__ | 0.06926 | 0.14943 | -0.07816 | 0.00820 |
| 2252_RPA2263_CDS;__2 | 0.46623 | 0.15273 | 0.18010 | 0.02850 |
| 2253_RPA2264_CDS;__2 | 0.59016 | 0.06646 | 0.05244 | -0.14366 |
| 2254_RPA2265_CDS;__2 | 0.05551 | 0.07770 | 0.12818 | 0.11627 |
| 2255_RPA2266_gst, pa | -0.13298 | -0.05479 | 0.00178 | 0.01287 |
| 2256_RPA2267_CDS;__2 | -0.04716 | 0.01085 | -0.04913 | 0.04943 |
| 2257_RPA2268_CDS;__2 | -0.07576 | 0.03256 | 0.16455 | 0.00610 |
| 2258_RPA2269_CDS;__2 | -0.22961 | 0.07987 | -0.03073 | 0.06676 |
| 2259_RPA2270_CDS;__2 | 0.12024 | 0.07725 | 0.17787 | 0.06094 |
| 2260_RPA2271_CDS;__2 | -0.21537 | 0.00949 | 0.12101 | 0.04197 |
| 2261_RPA2272_CDS;__2 | -0.21614 | -0.52743 | -0.03415 | 0.05172 |
| 2262_RPA2273_CDS;__2 | 0.42531 | 0.05425 | -0.22854 | 0.17353 |
| 2263_RPA2274_CDS;__2 | 0.42909 | 0.01280 | -0.08681 | 0.25398 |
| 2264_RPA2275_CDS;__2 | -0.11861 | 0.00323 | 0.12731 | 0.01826 |
| 2265_RPA2276_CDS;__2 | -0.00927 | -0.44997 | -0.14953 | -0.01404 |
| 2266_RPA2277_CDS;__2 | -0.09975 | 0.06630 | -0.05716 | 0.02461 |
| 2267_RPA2278_CDS;__2 | -0.22222 | 0.03301 | 0.01498 | 0.02926 |
| 2268_RPA2279_CDS;__2 | 0.03586 | -0.16660 | -0.09743 | 0.04073 |
| 2269_RPA2280_CDS;__2 | -0.07707 | 0.06896 | 0.09328 | 0.11159 |
| 2270_RPA2281_CDS;__2 | -0.28626 | -0.01793 | 0.11425 | 0.03121 |
| 2271_RPA2282_CDS;__2 | 0.26209 | 0.20019 | -0.14635 | -0.01433 |
| 2272_RPA2283_CDS;__2 | 0.32434 | 0.09162 | -0.10493 | 0.02947 |
| 2273_RPA2284_CDS;__2 | -0.18621 | 0.05000 | 0.12173 | 0.04881 |
| 2274_RPA2285_prfC;__ | -0.25429 | 0.05668 | -0.01924 | 0.03407 |
| 2275_RPA2286_CDS;__2 | 0.69845 | 0.02978 | -0.06170 | 0.07547 |
| 2276_RPA2287_CDS;__2 | 1.21002 | 0.26122 | -0.15986 | 0.04475 |
| 2277_RPA2288_CDS;__2 | 0.00886 | 0.04548 | 0.16491 | -0.01694 |
| 2278_RPA2289_CDS;__2 | -0.17058 | 0.05499 | 0.01564 | 0.02780 |
| 2279_RPA2290_CDS;__2 | -0.07362 | 0.04343 | 0.07807 | -0.11044 |
| 2280_RPA2291_CDS;__2 | -0.11031 | -0.09373 | 0.03226 | 0.02966 |
| 2281_RPA2292_CDS;__2 | -0.13095 | 0.07344 | 0.07715 | 0.01991 |
| 2282_RPA2293_CDS;__2 | -0.02180 | 0.07162 | 0.07743 | 0.01855 |
| 2283_RPA2294_CDS;__2 | 0.17874 | -0.00500 | -0.00603 | 0.09968 |
| 2284_RPA2295_CDS;__2 | 0.18033 | -0.06033 | 0.10304 | -0.20673 |

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| 2285_RPA2296_CDS;__2 | -0.07294 | 0.07638 | -0.03433 | 0.01579 |
| 2286_RPA2297_CDS;__2 | -0.13791 | 0.10221 | -0.14590 | -0.04945 |
| 2287_RPA2298_CDS;__2 | 0.03565 | -0.03684 | 0.03202 | -0.08143 |
| 2288_RPA2299_CDS;__2 | -0.04986 | 0.00166 | 0.24405 | 0.02731 |
| 2289_RPA2300_CDS;__2 | 0.03307 | -0.02608 | 0.07470 | -0.15782 |
| 2290_RPA2301_CDS;__2 | -0.13074 | 0.02844 | 0.12769 | 0.05902 |
| 2291_RPA2302_CDS;__2 | -0.14359 | 0.10588 | -0.07609 | -0.00532 |
| 2292_RPA2303_CDS;__2 | -0.13070 | 0.04501 | 0.08618 | 0.02894 |
| 2293_RPA2304_CDS;__2 | -0.23825 | -0.04176 | -0.04476 | 0.02744 |
| 2294_RPA2305_CDS;__2 | -0.24757 | 0.05597 | -0.00185 | 0.04027 |
| 2295_RPA2306_CDS;__2 | 0.19564 | 0.07102 | 0.13603 | 0.10155 |
| 2296_RPA2307_CDS;__2 | -0.02870 | 0.06908 | 0.03179 | -0.01055 |
| 2297_RPA2308_CDS;__2 | 0.22983 | -0.33383 | -0.03849 | 0.08665 |
| 2298_RPA2309_CDS;__2 | 0.16522 | -0.36417 | 0.02174 | -0.05857 |
| 2299_RPA2310_CDS;__2 | 0.01099 | -0.10496 | -0.04951 | -0.01055 |
| 2300_RPA2311_CDS;__2 | 0.04263 | -0.02781 | 0.06569 | 0.01632 |
| 2301_RPA2312_CDS;__2 | -0.09366 | -0.10420 | -0.16006 | 0.04598 |
| 2302_RPA2313_CDS;__2 | 0.05542 | -0.49509 | -0.09331 | 0.03542 |
| 2303_RPA2314_CDS;__2 | -0.00478 | 0.23749 | -0.20292 | 0.30892 |
| 2304_RPA2315_CDS;__2 | -0.09369 | 0.02007 | 0.18009 | 0.02287 |
| 2305_RPA2316_CDS;__2 | -0.22237 | 0.04256 | 0.02617 | 0.05298 |
| 2306_RPA2317_gctB;__ | -0.18037 | 0.06775 | 0.05720 | -0.01217 |
| 2307_RPA2318_gctA;__ | -0.00439 | 0.08813 | 0.11639 | 0.06732 |
| 2308_RPA2319_CDS;__2 | -0.10721 | 0.09756 | -0.08670 | 0.00541 |
| 2309_RPA2320_CDS;__2 | -0.05457 | 0.05063 | 0.11442 | 0.00801 |
| 2310_RPA2321_CDS;__2 | 0.32029 | -0.01918 | 0.13089 | 0.10079 |
| 2311_RPA2322_CDS;__2 | 0.04237 | 0.06612 | 0.00807 | -0.13073 |
| 2312_RPA2323_goaT;__ | 0.02357 | -0.03094 | 0.07796 | -0.24261 |
| 2313_RPA2324_gabD;__ | -0.17752 | -0.03586 | -0.09566 | -0.09555 |
| 2314_RPA2325_CDS;__2 | -0.05906 | -0.00530 | 0.02026 | -0.05130 |
| 2315_RPA2326_CDS;__2 | -0.14204 | 0.01619 | 0.06613 | -0.00781 |
| 2316_RPA2327_CDS;__2 | -0.14473 | 0.05385 | -0.00813 | 0.04510 |
| 2317_RPA2328_CDS;__2 | -0.11990 | 0.02990 | 0.04659 | -0.07118 |
| 2318_RPA2329_CDS;__2 | -0.09875 | -0.16884 | 0.07587 | 0.03420 |
| 2319_RPA2330_CDS;__2 | -0.09638 | -0.22886 | -0.02834 | -0.02108 |
| 2320_RPA2331_ggtA;__ | -0.09690 | -0.00851 | -0.02861 | 0.00056 |
| 2321_RPA2332_CDS;__2 | 0.15426 | 0.02324 | 0.07243 | -0.05191 |
| 2322_RPA2333_ctpC;__ | -0.02298 | 0.09429 | 0.01386 | -0.00632 |
| 2323_RPA2334_CDS;__2 | 0.09242 | 0.08720 | -0.02102 | -0.24990 |
| 2324_RPA2335_CDS;__2 | 0.13390 | 0.09664 | -0.22980 | 0.01237 |
| 2325_RPA2336_CDS;__2 | 0.43349 | 0.21624 | -0.12276 | 0.23430 |
| 2326_RPA2337_CDS;__2 | -0.02714 | 0.13623 | -0.02849 | 0.20074 |
| 2327_RPA2338_CDS;__2 | 0.42857 | -0.45175 | -0.01682 | 0.14828 |
| 2328_RPA2339_CDS;__2 | 0.24705 | -0.46976 | -0.06957 | 0.09743 |
| 2329_RPA2340_CDS;__2 | 0.22523 | 0.07988 | -0.19665 | 0.13319 |
| 2330_RPA2341_ilvD;__ | 0.15419 | -0.00186 | -0.10045 | 0.09395 |
| 2331_RPA2342_CDS;__2 | 0.13436 | -0.05183 | -0.08768 | 0.16392 |
| 2332_RPA2343_CDS;__2 | 0.49163 | 0.19507 | -0.04702 | 0.22434 |
| 2333_RPA2344_CDS;__2 | -0.02965 | 0.08867 | 0.03142 | 0.11444 |
| 2334_RPA2345_CDS;__2 | -0.11340 | -0.00743 | 0.01074 | 0.02563 |
| 2335_RPA2346_CDS;__2 | 0.04566 | 0.07664 | 0.05996 | -0.07714 |
| 2336_RPA2347_CDS;__2 | -0.16425 | 0.07596 | -0.02871 | -0.03010 |
| 2337_RPA2348_CDS;__2 | -0.14681 | 0.08554 | 0.00318 | -0.01411 |
| 2338_RPA2349_metY;__ | -0.01093 | -0.00515 | 0.00463 | 0.04871 |
| 2339_RPA2350_metC;__ | 0.04353 | -0.05800 | 0.06581 | -0.07782 |
| 2340_RPA2351_CDS;__2 | 0.13013 | 0.08183 | 0.01124 | 0.04322 |
| 2341_RPA2352_CDS;__2 | 0.03495 | -0.02179 | -0.04295 | -0.05328 |

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| 2342_RPA2353_nifH;__ | -0.08578 | 0.10737 | -0.04792 | -0.02561 |
| 2343_RPA2354_nifB;__ | 0.11629 | 0.04277 | -0.01538 | -0.06290 |
| 2344_RPA2355_CDS;__2 | 0.10942 | -0.04763 | 0.00199 | -0.11600 |
| 2345_RPA2356_CDS;__2 | -0.01149 | 0.05342 | 0.08838 | 0.06434 |
| 2346_RPA2357_CDS;__2 | -0.09112 | -0.03339 | 0.11569 | -0.16439 |
| 2347_RPA2358_CDS;__2 | 0.07966 | 0.01062 | -0.05537 | 0.00319 |
| 2348_RPA2359_CDS;__2 | 0.11132 | -0.09468 | -0.01492 | 0.00663 |
| 2349_RPA2360_CDS;__2 | 0.10015 | 0.04292 | 0.09544 | 0.04001 |
| 2350_RPA2361_CDS;__2 | -0.05031 | -0.00618 | -0.03924 | 0.03067 |
| 2351_RPA2362_CDS;__2 | -0.14590 | -0.06690 | 0.12069 | -0.10567 |
| 2352_RPA2363_NifD;__ | -0.05978 | -0.08269 | 0.06987 | 0.05866 |
| 2353_RPA2364_CDS;__2 | -0.04978 | 0.05779 | 0.11164 | -0.07184 |
| 2354_RPA2365_CDS;__2 | 0.11178 | 0.04596 | 0.16185 | 0.01204 |
| 2355_RPA2366_CDS;__2 | 0.58514 | 0.05095 | 0.16065 | -0.13087 |
| 2356_RPA2367_CDS;__2 | 0.25807 | 0.15119 | -0.07841 | 0.05234 |
| 2357_RPA2368_CDS;__2 | 0.42318 | 0.08091 | 0.25716 | 0.30022 |
| 2358_RPA2369_CDS;__2 | 0.49148 | 0.11734 | -0.33908 | -0.12692 |
| 2359_RPA4839_CDS;__2 | 0.72850 | 0.05607 | -0.16452 | -0.05762 |
| 2360_RPA2370_CDS;__2 | 0.39478 | 0.23696 | -0.24651 | 0.22076 |
| 2361_RPA2371_mexA;__ | 0.06327 | 0.06952 | 0.07643 | 0.06470 |
| 2362_RPA2372_mexB;__ | 0.00206 | -0.22839 | 0.01104 | 0.03872 |
| 2363_RPA2373_CDS;__2 | 0.28118 | -0.12874 | 0.11160 | 0.00599 |
| 2364_RPA2374_CDS;__2 | 0.25226 | -0.00790 | 0.11451 | -0.03180 |
| 2365_RPA2375_CDS;__2 | 0.18408 | -0.12544 | 0.07802 | -0.08363 |
| 2366_RPA2377_CDS;__2 | 0.71717 | 0.20343 | 0.01633 | 0.19630 |
| 2367_RPA2378_CDS;__2 | 0.04479 | 0.01939 | 0.00617 | 0.01360 |
| 2368_RPA2379_CDS;__2 | 0.08481 | 0.13507 | -0.06781 | -0.08610 |
| 2369_RPA2380_CDS;__2 | 0.26278 | -0.10616 | -0.09141 | 0.03708 |
| 2370_RPA2381_CDS;__2 | 0.11535 | 0.03105 | -0.10987 | 0.03782 |
| 2371_RPA2382_CDS;__2 | 0.21264 | -0.47587 | -0.00718 | 0.10073 |
| 2372_RPA2383_CDS;__2 | -0.01768 | 0.07779 | 0.00234 | 0.03740 |
| 2373_RPA2384_CDS;__2 | 0.01972 | 0.07383 | 0.04255 | -0.12450 |
| 2374_RPA2385_CDS;__2 | 0.20579 | 0.08119 | -0.14203 | 0.10403 |
| 2375_RPA2386_CDS;__2 | 0.31760 | 0.07393 | -0.11751 | 0.07790 |
| 2376_RPA2387_CDS;__2 | 0.20353 | -0.07936 | 0.04978 | -0.09467 |
| 2377_RPA2388_CDS;__2 | 0.18854 | -0.05947 | 0.04815 | 0.05997 |
| 2378_RPA2389_CDS;__2 | 0.21460 | 0.09592 | 0.06231 | -0.05854 |
| 2379_RPA2390_CDS;__2 | 0.30935 | 0.07649 | 0.01785 | 0.12720 |
| 2380_RPA2391_CDS;__2 | 0.27280 | -0.08951 | 0.01244 | -0.06991 |
| 2381_RPA2394_prpC;__ | 0.00951 | 0.08646 | -0.07053 | -0.00781 |
| 2382_RPA2395_prpB;__ | -0.01678 | 0.03201 | 0.06334 | 0.02284 |
| 2383_RPA2396_CDS;__2 | 0.18892 | -0.03639 | 0.05414 | -0.11922 |
| 2384_RPA2397_metE;__ | 0.14198 | 0.08364 | 0.01999 | -0.08560 |
| 2385_RPA2398_CDS;__2 | 0.38028 | -0.01506 | -0.12682 | -0.05465 |
| 2386_RPA2399_CDS;__2 | 0.25109 | 0.09287 | 0.05664 | -0.02842 |
| 2387_RPA2400_CDS;__2 | 0.29450 | -0.03436 | 0.15919 | -0.08787 |
| 2388_RPA2401_CDS;__2 | 0.26861 | -0.10307 | 0.46969 | -0.22808 |
| 2389_RPA2402_CDS;__2 | 0.59475 | 0.14456 | 0.07016 | 0.26196 |
| 2390_RPA2403_CDS;__2 | 0.02869 | -0.06934 | -0.07958 | 0.03845 |
| 2391_RPA2404_CDS;__2 | 0.02939 | -0.07505 | -0.01581 | -0.03284 |
| 2392_RPA2405_draT;__ | -0.06801 | -0.11251 | 0.13768 | 0.04167 |
| 2393_RPA2406_draG;__ | -0.04925 | -0.06871 | -0.03395 | -0.02571 |
| 2394_RPA2407_CDS;__2 | 0.33803 | 0.01465 | 0.05452 | -0.05116 |
| 2395_RPA2408_amiC;__ | -0.02147 | -0.03187 | -0.01086 | 0.00068 |
| 2396_RPA2409_CDS;__2 | 0.03049 | 0.05553 | 0.16743 | -0.20384 |
| 2397_RPA2410_CDS;__2 | -0.11417 | -0.08232 | -0.00225 | 0.07256 |
| 2398_RPA2411_CDS;__2 | -0.00640 | -0.12888 | 0.04921 | -0.02365 |

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| 2399_RPA2412_CDS;__2 | -0.01622 | -0.53727 | -0.01320 | 0.07127 |
| 2400_RPA2413_CDS;__2 | -0.11084 | -0.00419 | 0.18111 | 0.05292 |
| 2401_RPA2414_CDS;__2 | -0.16815 | 0.02757 | 0.10254 | 0.03558 |
| 2402_RPA2415_CDS;__2 | -0.15093 | 0.04196 | -0.03465 | -0.07631 |
| 2403_RPA2416_CDS;__2 | -0.01006 | -0.05590 | 0.12147 | 0.06625 |
| 2404_RPA2417_CDS;__2 | -0.06634 | 0.05294 | 0.07597 | -0.10785 |
| 2405_RPA2419_CDS;__2 | -0.17615 | 0.13956 | -0.34639 | -0.19730 |
| 2406_RPA2420_CDS;__2 | 0.03251 | 0.09924 | -0.00720 | 0.03215 |
| 2407_RPA2421_CDS;__2 | -0.13278 | -0.02494 | 0.00340 | 0.01413 |
| 2408_RPA2422_CDS;__2 | 0.02752 | 0.06419 | 0.02866 | 0.03632 |
| 2409_RPA2423_CDS;__2 | 0.07242 | -0.16743 | 0.14451 | 0.03241 |
| 2410_RPA2424_CDS;__2 | -0.00766 | 0.08827 | 0.00202 | 0.05277 |
| 2411_RPA2425_CDS;__2 | -0.11318 | 0.06336 | 0.05935 | -0.04386 |
| 2412_RPA2426_CDS;__2 | 0.01486 | -0.21314 | -0.02060 | -0.01925 |
| 2413_RPA2427_CDS;__2 | 0.13515 | 0.00369 | -0.02675 | 0.10497 |
| 2414_RPA2428_CDS;__2 | 0.62548 | 0.20706 | -0.29920 | 0.18648 |
| 2415_RPA2429_aat;__2 | -0.21174 | 0.07580 | -0.00564 | 0.07576 |
| 2416_RPA2430_CDS;__2 | -0.02481 | 0.10237 | -0.03487 | 0.05007 |
| 2417_RPA2431_CDS;__2 | 0.01061 | -0.44875 | -0.13892 | 0.06953 |
| 2418_RPA2432_CDS;__2 | -0.15297 | 0.05751 | 0.02072 | 0.04287 |
| 2419_RPA2433_CDS;__2 | 0.03992 | -0.18453 | -0.01975 | -0.20042 |
| 2420_RPA2434_CDS;__2 | -0.04235 | 0.01869 | -0.01112 | 0.11847 |
| 2421_RPA2435_accC;__ | -0.19637 | 0.06204 | 0.02128 | 0.08203 |
| 2422_RPA2436_accB;__ | -0.12685 | -0.02228 | -0.01417 | -0.03875 |
| 2423_RPA2437_aroQ2;__ | -0.08464 | 0.15755 | -0.30370 | -0.16225 |
| 2424_RPA2438_CDS;__2 | -0.05505 | 0.00734 | -0.00540 | -0.09205 |
| 2425_RPA2439_CDS;__2 | 0.08406 | -0.10059 | -0.21651 | 0.04951 |
| 2426_RPA2440_CDS;__2 | 0.16367 | 0.08655 | -0.04972 | -0.01809 |
| 2427_RPA2441_CDS;__2 | 0.24323 | 0.15529 | -0.04321 | 0.16486 |
| 2428_RPA2442_CDS;__2 | -0.18753 | 0.05830 | 0.00547 | 0.02016 |
| 2429_RPA2443_CDS;__2 | -0.15109 | 0.10148 | -0.09630 | 0.04059 |
| 2430_RPA2444_CDS;__2 | 0.08674 | 0.04854 | 0.08137 | -0.22132 |
| 2431_RPA2445_CDS;__2 | -0.13482 | 0.06407 | 0.01475 | 0.04158 |
| 2432_RPA2446_CDS;__2 | 0.00618 | -0.12187 | -0.01861 | -0.04024 |
| 2433_RPA2447_CDS;__2 | -0.03249 | 0.11061 | -0.10545 | 0.06531 |
| 2434_RPA2448_dctA;__ | -0.22115 | -0.21259 | -0.12017 | 0.01122 |
| 2435_RPA2449_CDS;__2 | 0.26113 | 0.12255 | 0.01534 | 0.01411 |
| 2436_RPA2450_rne;__2 | -0.20417 | 0.09534 | -0.08086 | 0.00914 |
| 2437_RPA2451_amiC;__ | 0.11580 | 0.00344 | -0.11479 | 0.10364 |
| 2438_RPA2452_CDS;__2 | -0.25440 | 0.05408 | -0.06141 | 0.00876 |
| 2439_RPA2453_prfB;__ | -0.16275 | -0.42830 | -0.34049 | 0.03176 |
| 2440_RPA2454_CDS;__2 | 0.05545 | -0.22793 | 0.10090 | -0.16610 |
| 2441_RPA2455_CDS;__2 | -0.17726 | 0.08840 | -0.03526 | 0.02996 |
| 2442_RPA2456_CDS;__2 | 0.13632 | 0.14964 | -0.13247 | 0.07433 |
| 2443_RPA2457_CDS;__2 | -0.09101 | 0.06866 | 0.02858 | -0.00507 |
| 2444_RPA2458_CDS;__2 | -0.15172 | -0.01813 | -0.01895 | 0.03751 |
| 2445_RPA2459_CDS;__2 | -0.12663 | -0.07943 | 0.01028 | 0.02207 |
| 2446_RPA2460_tyrS;__ | -0.19420 | 0.06452 | -0.04787 | -0.07038 |
| 2447_RPA2461_CDS;__2 | -0.06795 | 0.02419 | 0.14646 | -0.03714 |
| 2448_RPA2462_CDS;__2 | -0.18776 | 0.07413 | -0.03954 | 0.06617 |
| 2449_RPA2463_nifS;__ | 0.32202 | -0.08546 | 0.05226 | 0.02180 |
| 2450_RPA2464_sufB;__ | -0.21214 | -0.01846 | -0.04967 | 0.03865 |
| 2451_RPA2465_sufC;__ | -0.20952 | 0.06878 | -0.01223 | -0.04217 |
| 2452_RPA2466_sufD;__ | -0.10340 | 0.07390 | -0.02969 | -0.01832 |
| 2453_RPA2467_sufS;__ | -0.01271 | 0.05920 | 0.10717 | -0.24430 |
| 2454_RPA2468_CDS;__2 | -0.03595 | -0.55683 | 0.09968 | 0.09689 |
| 2455_RPA2469_CDS;__2 | 0.29213 | -0.53213 | 0.19135 | -0.64587 |

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| 2456_RPA2470_CDS;__2 | 0.07527 | -0.04053 | -0.18095 | 0.08862 |
| 2457_RPA2471_CDS;__2 | -0.12497 | 0.03303 | 0.06942 | -0.02406 |
| 2458_RPA2472_CDS;__2 | 0.03349 | 0.09335 | 0.05830 | -0.02244 |
| 2459_RPA2473_CDS;__2 | 0.01579 | 0.06213 | -0.16934 | -0.10988 |
| 2460_RPA2474_CDS;__2 | 0.03012 | -0.08801 | 0.11880 | -0.10296 |
| 2461_RPA2475_CDS;__2 | 0.08080 | -0.03042 | 0.08228 | -0.05875 |
| 2462_RPA2476_CDS;__2 | -0.22031 | 0.05354 | 0.07406 | 0.05620 |
| 2463_RPA2477_CDS;__2 | -0.13895 | 0.12373 | -0.10549 | 0.05316 |
| 2464_RPA2478_CDS;__2 | 0.14487 | -0.08427 | 0.02506 | 0.00940 |
| 2465_RPA2479_CDS;__2 | 0.14411 | -0.46825 | -0.15588 | -0.03492 |
| 2466_RPA2480_CDS;__2 | -0.07337 | -0.17066 | 0.00494 | 0.01597 |
| 2467_RPA2481_CDS;__2 | -0.02485 | 0.06571 | 0.05745 | -0.07624 |
| 2468_RPA2482_CDS;__2 | -0.02901 | 0.02347 | 0.12614 | -0.08275 |
| 2469_RPA2483_CDS;__2 | 0.37574 | -0.00814 | -0.14512 | 0.12135 |
| 2470_RPA2484_CDS;__2 | 0.01513 | 0.09817 | 0.02969 | 0.07026 |
| 2471_RPA2485_aqpZ;__ | 0.17329 | 0.19900 | -0.05800 | 0.12004 |
| 2472_RPA2486_parE;__ | -0.22369 | 0.08442 | -0.07523 | 0.02766 |
| 2473_RPA2487_CDS;__2 | -0.08014 | -0.09313 | 0.18670 | 0.07335 |
| 2474_RPA2488_CDS;__2 | -0.20021 | -0.00390 | -0.03645 | 0.05720 |
| 2475_RPA2489_CDS;__2 | -0.16728 | 0.08153 | -0.00690 | 0.04018 |
| 2476_RPA2490_CDS;__2 | -0.10234 | 0.01943 | 0.16257 | 0.07389 |
| 2477_RPA2491_argC;__ | -0.24891 | 0.03457 | 0.04439 | 0.02294 |
| 2478_RPA2492_CDS;__2 | -0.10658 | 0.04158 | 0.06953 | 0.02614 |
| 2479_RPA2493_CDS;__2 | -0.05188 | -0.01491 | 0.05849 | -0.09819 |
| 2480_RPA2494_CDS;__2 | 0.03751 | -0.00177 | 0.01357 | 0.01939 |
| 2481_RPA2495_CDS;__2 | 0.13837 | 0.13226 | -0.16247 | 0.00648 |
| 2482_RPA2496_CDS;__2 | 0.19325 | 0.07741 | 0.10800 | 0.10399 |
| 2483_RPA2497_CDS;__2 | 0.05605 | 0.08283 | 0.10141 | -0.06282 |
| 2484_RPA2498_CDS;__2 | -0.03112 | -0.01997 | -0.00580 | 0.02656 |
| 2485_RPA2499_CDS;__2 | 0.05502 | 0.14743 | -0.11185 | 0.01365 |
| 2486_RPA2500_CDS;__2 | 0.07427 | -0.08630 | 0.12891 | -0.08504 |
| 2487_RPA2501_phbC;__ | -0.18275 | 0.10589 | -0.08633 | 0.07300 |
| 2488_RPA2502_CDS;__2 | 0.10290 | 0.16561 | -0.00173 | 0.27285 |
| 2489_RPA2503_CDS;__2 | -0.24917 | 0.08824 | -0.08000 | 0.03792 |
| 2490_RPA2504_HDH;__2 | -0.15981 | -0.05893 | -0.05978 | -0.10085 |
| 2491_RPA2505_glpX;__ | -0.29944 | 0.11103 | -0.22398 | -0.04527 |
| 2492_RPA2506_CDS;__2 | 0.02590 | 0.12102 | -0.09716 | 0.00035 |
| 2493_RPA2507_CDS;__2 | -0.06057 | 0.03118 | 0.08043 | -0.01461 |
| 2494_RPA2508_recJ;__ | -0.04429 | 0.05556 | 0.05390 | 0.06153 |
| 2495_RPA2509_CDS;__2 | -0.17202 | 0.19135 | -0.21668 | 0.22301 |
| 2496_RPA2510_CDS;__2 | -0.04608 | -0.12817 | 0.23734 | 0.10995 |
| 2497_RPA2511_CDS;__2 | -0.05238 | 0.06463 | 0.07040 | 0.06709 |
| 2498_RPA2512_CDS;__2 | -0.09490 | -0.02789 | 0.09885 | -0.14773 |
| 2499_RPA2513_efp;__2 | -0.04809 | 0.11029 | -0.23009 | 0.00880 |
| 2500_RPA2514_CDS;__2 | 0.08746 | -0.14859 | 0.16570 | -0.03919 |
| 2501_RPA2515_kamA;__ | -0.08531 | 0.00679 | 0.08314 | -0.00798 |
| 2502_RPA2516_CDS;__2 | 0.23141 | 0.06837 | 0.21648 | -0.00763 |
| 2503_RPA2517_CDS;__2 | -0.08218 | -0.01925 | 0.03933 | -0.13730 |
| 2504_RPA2518_CDS;__2 | 0.56024 | 0.07397 | 0.26834 | 0.12164 |
| 2505_RPA2519_CDS;__2 | 0.60230 | 0.16059 | 0.19891 | 0.32149 |
| 2506_RPA2520_CDS;__2 | 0.82387 | -0.37323 | -0.06623 | 0.19218 |
| 2507_RPA2521_CDS;__2 | 0.60773 | -0.04451 | 0.56900 | -1.41436 |
| 2508_RPA2522_CDS;__2 | 0.40865 | 0.06906 | 0.08628 | -0.14050 |
| 2509_RPA2523_CDS;__2 | -0.19526 | 0.05861 | 0.00389 | 0.01562 |
| 2510_RPA2524_CDS;__2 | 0.11031 | 0.12222 | -0.08335 | 0.02283 |
| 2511_RPA2525_CDS;__2 | 0.02589 | 0.05943 | 0.07145 | 0.10927 |
| 2512_RPA2526_CDS;__2 | -0.22563 | 0.03525 | 0.03226 | 0.00009 |

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| 2513_RPA2527_CDS;__2 | 0.31652 | 0.02321 | -0.15013 | -0.12173 |
| 2514_RPA2528_CDS;__2 | 0.56404 | 0.07902 | -0.10366 | -0.01997 |
| 2515_RPA2529_CDS;__2 | 0.49104 | -0.10072 | -0.18505 | 0.06995 |
| 2516_RPA2530_CDS;__2 | 0.72374 | -0.09358 | -0.04809 | -0.28674 |
| 2517_RPA2531_CDS;__2 | 0.45034 | 0.00764 | -0.09721 | 0.23157 |
| 2518_RPA2532_CDS;__2 | 0.69067 | -0.04511 | -0.20788 | 0.04732 |
| 2519_RPA2533_CDS;__2 | 0.81060 | -0.28044 | -0.21482 | 0.12688 |
| 2520_RPA2534_CDS;__2 | 0.53487 | -0.09159 | -0.17831 | -0.17555 |
| 2521_RPA2535_waaG;__ | -0.05045 | -0.07079 | 0.16189 | 0.00151 |
| 2522_RPA2536_CDS;__2 | -0.17549 | 0.05275 | 0.02837 | 0.05221 |
| 2523_RPA2537_CDS;__2 | -0.19089 | 0.06105 | 0.02113 | 0.08711 |
| 2524_RPA2538_CDS;__2 | -0.13276 | 0.04214 | 0.05121 | 0.05012 |
| 2525_RPA2539_CDS;__2 | -0.12288 | -0.06630 | 0.03201 | 0.01937 |
| 2526_RPA2540_hmgL;__ | -0.18526 | 0.06527 | -0.02217 | 0.02417 |
| 2527_RPA2541_CDS;__2 | -0.17794 | -0.08735 | -0.12216 | 0.09939 |
| 2528_RPA2542_CDS;__2 | -0.20997 | 0.03761 | 0.14125 | 0.08687 |
| 2529_RPA2543_CDS;__2 | -0.19281 | 0.06865 | -0.00342 | 0.09270 |
| 2530_RPA2544_CDS;__2 | 0.10708 | 0.15750 | -0.52325 | -0.19418 |
| 2531_RPA2545_CDS;__2 | -0.07880 | -0.05806 | 0.03643 | 0.06082 |
| 2532_RPA2546_CDS;__2 | -0.08226 | 0.18005 | -0.32430 | -0.07564 |
| 2533_RPA2547_CDS;__2 | -0.13452 | 0.07858 | 0.08746 | 0.09991 |
| 2534_RPA2548_CDS;__2 | -0.13535 | 0.02770 | 0.14426 | 0.07983 |
| 2535_RPA2549_CDS;__2 | -0.24813 | -0.18530 | 0.07122 | 0.04003 |
| 2536_RPA2550_CDS;__2 | 0.01428 | -0.02584 | 0.12830 | 0.11417 |
| 2537_RPA2551_CDS;__2 | -0.12111 | -0.17348 | 0.15522 | 0.12487 |
| 2538_RPA2552_CDS;__2 | 0.62974 | 0.17437 | 0.00994 | -0.09903 |
| 2539_RPA2553_CDS;__2 | -0.18820 | -0.08810 | -0.01994 | -0.00878 |
| 2540_RPA2554_CDS;__2 | 0.03644 | 0.05130 | 0.09916 | -0.00990 |
| 2541_RPA2555_CDS;__2 | -0.10685 | -0.10722 | 0.06737 | 0.02582 |
| 2542_RPA2556_CDS;__2 | -0.02615 | -0.03265 | 0.06525 | 0.06411 |
| 2543_RPA2557_CDS;__2 | -0.02418 | 0.11191 | -0.09970 | 0.08167 |
| 2544_RPA2558_CDS;__2 | -0.24534 | -0.03194 | -0.05670 | -0.05129 |
| 2545_RPA2559_metC;__ | -0.12432 | -0.19166 | 0.01554 | 0.01327 |
| 2546_RPA2560_aapJ-1; | -0.16685 | 0.09220 | -0.16145 | -0.06178 |
| 2547_RPA2561_aapQ-1; | -0.08204 | -0.05332 | 0.09402 | 0.02256 |
| 2548_RPA2562_aapM-1; | -0.13239 | -0.00642 | 0.17557 | -0.05948 |
| 2549_RPA2563_aapP-1; | -0.23681 | 0.03717 | 0.05249 | 0.04120 |
| 2550_RPA2564_CDS;__2 | 0.35174 | 0.10246 | 0.03939 | 0.24262 |
| 2551_RPA2565_CDS;__2 | -0.35623 | 0.06222 | 0.07855 | 0.10384 |
| 2552_RPA2566_CDS;__2 | 0.66247 | -0.25771 | -0.10120 | -0.09550 |
| 2553_RPA2567_CDS;__2 | 0.80680 | 0.00157 | -0.08643 | 0.02166 |
| 2554_RPA2568_CDS;__2 | -0.15057 | 0.08160 | -0.06977 | -0.04138 |
| 2555_RPA2569_cfa;__2 | -0.07225 | 0.06825 | 0.03272 | 0.10812 |
| 2556_RPA2570_CDS;__2 | 0.02133 | 0.07787 | -0.02362 | 0.02812 |
| 2557_RPA2571_CDS;__2 | -0.05512 | 0.07554 | 0.02009 | -0.07717 |
| 2558_RPA2572_CDS;__2 | -0.05226 | 0.04957 | 0.09386 | -0.03068 |
| 2559_RPA2573_CDS;__2 | -0.00639 | -0.04018 | 0.10457 | -0.12564 |
| 2560_RPA2574_CDS;__2 | -0.12681 | -0.25638 | 0.01407 | 0.01558 |
| 2561_RPA2575_CDS;__2 | -0.18830 | -0.00535 | 0.15837 | 0.03921 |
| 2562_RPA2576_CDS;__2 | -0.18830 | -0.20104 | 0.07740 | -0.04374 |
| 2563_RPA2577_CDS;__2 | -0.05323 | 0.01239 | 0.17377 | -0.03697 |
| 2564_RPA2578_CDS;__2 | 0.13073 | -0.49758 | -0.04349 | 0.06971 |
| 2565_RPA2579_CDS;__2 | 0.28199 | -0.18469 | -0.03252 | 0.03891 |
| 2566_RPA2580_CDS;__2 | 0.02816 | 0.07667 | -0.06599 | -0.01677 |
| 2567_RPA2581_CDS;__2 | 0.10772 | -0.44515 | -0.25500 | -0.06162 |
| 2568_RPA2582_CDS;__2 | 0.01052 | 0.00777 | -0.01527 | -0.24461 |
| 2569_RPA2583_valS;__ | -0.20541 | -0.03347 | -0.05943 | -0.01141 |

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| 2570_RPA2584_CDS;__2 | -0.04702 | -0.18398 | -0.09120 | 0.04089 |
| 2571_RPA2585_CDS;__2 | -0.05635 | -0.48737 | -0.14881 | -0.02265 |
| 2572_RPA2586_3mg;__2 | -0.04631 | 0.11559 | 0.01612 | 0.00824 |
| 2573_RPA2587_lipA;__ | -0.20272 | 0.02479 | 0.07665 | 0.05415 |
| 2574_RPA2588_CDS;__2 | -0.20320 | 0.07405 | 0.10813 | -0.04149 |
| 2575_RPA2589_cinA;__ | -0.12355 | 0.06746 | 0.00421 | 0.01811 |
| 2576_RPA2590_ispD;__ | -0.11298 | -0.17168 | -0.14776 | 0.00487 |
| 2577_RPA2591_nifR3;__ | -0.02242 | 0.05756 | -0.02272 | -0.01405 |
| 2578_RPA2592_ntrB;__ | -0.00425 | -0.27037 | -0.14308 | 0.10373 |
| 2579_RPA2593_ntrC;__ | -0.13942 | -0.01349 | -0.03733 | -0.05481 |
| 2580_RPA2594_ntrY;__ | -0.11028 | 0.06386 | -0.00368 | -0.03208 |
| 2581_RPA2595_ntrX;__ | -0.17446 | 0.07335 | -0.09959 | -0.03011 |
| 2582_RPA2596_CDS;__2 | 0.06797 | 0.07738 | 0.08046 | 0.14337 |
| 2583_RPA2597_CDS;__2 | 0.28066 | 0.07689 | 0.01573 | -0.03725 |
| 2584_RPA2598_CDS;__2 | -0.20389 | 0.04514 | 0.02509 | 0.01337 |
| 2585_RPA2599_gyrA;__ | -0.16656 | -0.06647 | -0.11734 | -0.00566 |
| 2586_RPA2600_CDS;__2 | 0.61767 | -0.25813 | -0.06237 | -0.20528 |
| 2587_RPA2601_kdtB;__ | 0.01612 | 0.13874 | -0.11891 | 0.10012 |
| 2588_RPA2602_CDS;__2 | -0.22995 | 0.00563 | -0.10747 | -0.00652 |
| 2589_RPA2603_CDS;__2 | 0.45622 | 0.16620 | 0.08774 | 0.03656 |
| 2590_RPA2604_CDS;__2 | -0.32524 | 0.12476 | -0.15795 | 0.04506 |
| 2591_RPA2605_queA;__ | -0.09198 | -0.13556 | 0.04180 | 0.06243 |
| 2592_RPA2606_tgt;__2 | -0.14745 | 0.04582 | -0.00756 | -0.00888 |
| 2593_RPA2607_CDS;__2 | 0.08066 | -0.00279 | 0.02366 | 0.04923 |
| 2594_RPA2608_CDS;__2 | 0.06189 | 0.09815 | -0.22191 | 0.07983 |
| 2595_RPA2609_CDS;__2 | 0.19357 | -0.02913 | -0.12759 | -0.07953 |
| 2596_RPA2610_ssuB;__ | 0.13750 | 0.12657 | -0.03647 | 0.08180 |
| 2597_RPA2611_CDS;__2 | -0.01003 | 0.14742 | -0.06101 | 0.09036 |
| 2598_RPA2612_msuD;__ | 0.00191 | 0.06971 | 0.07358 | -0.05288 |
| 2599_RPA2613_CDS;__2 | 0.15503 | 0.02067 | 0.01416 | 0.01923 |
| 2600_RPA2614_CDS;__2 | 0.13314 | -0.04634 | 0.00407 | -0.08957 |
| 2601_RPA2615_nifH;__ | 0.05052 | -0.10280 | 0.07398 | 0.01301 |
| 2602_RPA2616_CDS;__2 | 0.33841 | 0.07981 | 0.21352 | -0.27006 |
| 2603_RPA2617_CDS;__2 | 0.19021 | 0.06854 | 0.13394 | -0.01019 |
| 2604_RPA2618_CDS;__2 | 0.17527 | 0.05078 | -0.09369 | 0.06375 |
| 2605_RPA2619_CDS;__2 | 0.27410 | -0.02610 | 0.04298 | -0.08991 |
| 2606_RPA2620_CDS;__2 | -0.08610 | 0.10592 | 0.00211 | 0.06805 |
| 2607_RPA2621_CDS;__2 | 0.29524 | -0.19136 | 0.02512 | -0.12165 |
| 2608_RPA2622_CDS;__2 | 0.19111 | 0.15478 | -0.10056 | 0.05659 |
| 2609_RPA2623_CDS;__2 | 0.07603 | 0.00593 | -0.03677 | -0.09069 |
| 2610_RPA2624_CDS;__2 | 0.07381 | 0.02638 | -0.06606 | -0.03103 |
| 2611_RPA2625_CDS;__2 | 0.24755 | 0.01023 | -0.02723 | 0.05671 |
| 2612_RPA2626_CDS;__2 | 0.12628 | 0.03836 | -0.02528 | 0.13098 |
| 2613_RPA2627_CDS;__2 | 0.01627 | -0.00748 | -0.06991 | -0.02941 |
| 2614_RPA2628_aapJ-2; | 0.03418 | -0.00508 | 0.02908 | 0.03546 |
| 2615_RPA2629_aapQ-2; | 0.14773 | 0.05854 | 0.12353 | 0.06219 |
| 2616_RPA2630_aapM-2; | 0.08336 | -0.14760 | 0.10774 | -0.00678 |
| 2617_RPA2631_CDS;__2 | 0.19745 | 0.10866 | -0.15543 | -0.24015 |
| 2618_RPA2632_CDS;__2 | 0.37134 | 0.11706 | 0.01613 | -0.04921 |
| 2619_RPA2633_CDS;__2 | 0.43171 | -0.38777 | -0.16783 | 0.19515 |
| 2620_RPA2634_nifB;__ | 0.31015 | -0.12124 | 0.09838 | -0.13569 |
| 2621_RPA2635_nifH;__ | 0.05478 | 0.04997 | 0.04210 | -0.06319 |
| 2622_RPA2636_NifD;__ | 0.09867 | -0.00729 | 0.07808 | 0.04789 |
| 2623_RPA2637_CDS;__3 | 0.35298 | -0.18491 | 0.00982 | -0.08906 |
| 2624_RPA2638_CDS;__3 | 0.03878 | 0.07503 | 0.06561 | 0.01424 |
| 2625_RPA2639_CDS;__3 | 0.13728 | -0.12064 | 0.00327 | -0.13965 |
| 2626_RPA2640_CDS;__3 | 0.11648 | 0.06805 | -0.03353 | -0.05818 |

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| 2627_RPA2641_CDS;__3 | 0.14128 | 0.04181 | -0.08238 | 0.00921 |
| 2628_RPA2642_CDS;__3 | 0.37651 | -0.25758 | -0.05250 | -0.19595 |
| 2629_RPA2643_CDS;__3 | -0.03313 | 0.08098 | -0.01572 | 0.04108 |
| 2630_RPA2644_CDS;__3 | 0.17291 | 0.01444 | 0.08077 | -0.07205 |
| 2631_RPA2645_CDS;__3 | -0.08543 | -0.03927 | -0.05627 | -0.07638 |
| 2632_RPA2646_CDS;__3 | -0.14319 | 0.02511 | -0.12475 | 0.02739 |
| 2633_RPA2647_CDS;__3 | 0.20222 | 0.13986 | -0.19615 | -0.05317 |
| 2634_RPA2648_CDS;__3 | 0.18216 | 0.09718 | -0.01937 | -0.11113 |
| 2635_RPA2649_CDS;__3 | 0.19635 | 0.09946 | -0.09219 | 0.01634 |
| 2636_RPA2650_CDS;__3 | -0.05684 | 0.05149 | 0.05666 | 0.04662 |
| 2637_RPA2651_CDS;__3 | 0.00391 | -0.08529 | 0.12394 | 0.00450 |
| 2638_RPA2652_CDS;__3 | -0.23230 | -0.03890 | -0.08108 | -0.00595 |
| 2639_RPA2653_pucAa;__ | -0.04376 | 0.10455 | -0.56431 | -0.46297 |
| 2640_RPA2654_pucBa;__ | -0.16370 | 0.07486 | -0.29870 | 0.02276 |
| 2641_RPA2655_CDS;__3 | -0.14934 | 0.08147 | -0.03074 | 0.05380 |
| 2642_RPA2656_CDS;__3 | 0.22277 | 0.02406 | -0.08763 | 0.03413 |
| 2643_RPA2657_CDS;__3 | -0.09097 | 0.03441 | 0.02365 | -0.01874 |
| 2644_RPA2658_CDS;__3 | 0.13164 | 0.05030 | 0.11275 | 0.10611 |
| 2645_RPA2659_glmU;__ | -0.05898 | 0.10297 | -0.07462 | 0.02468 |
| 2646_RPA2660_glmS;__ | -0.10190 | -0.13442 | -0.02978 | 0.03908 |
| 2647_RPA2661_CDS;__3 | 0.03727 | 0.07630 | -0.00321 | -0.05902 |
| 2648_RPA2662_recG;__ | -0.05862 | 0.05144 | 0.11166 | 0.09258 |
| 2649_RPA2663_Mfd;__3 | -0.18940 | 0.05546 | 0.00426 | 0.00161 |
| 2650_RPA2664_CDS;__3 | 0.01812 | -0.00883 | 0.09376 | -0.06485 |
| 2651_RPA2665_CDS;__3 | 0.06075 | -0.10824 | -0.04419 | 0.01033 |
| 2652_RPA2666_CDS;__3 | -0.05321 | 0.07858 | 0.04105 | -0.03730 |
| 2653_RPA2667_CDS;__3 | -0.07586 | 0.10448 | -0.02730 | -0.09926 |
| 2654_RPA2668_CDS;__3 | 0.31644 | 0.17094 | -0.00634 | 0.08533 |
| 2655_RPA2669_CDS;__3 | -0.11415 | -0.03601 | 0.05623 | 0.11506 |
| 2656_RPA2670_CDS;__3 | 0.09684 | -0.27162 | 0.14359 | 0.16817 |
| 2657_RPA2671_CDS;__3 | -0.03882 | 0.07861 | 0.03519 | 0.02232 |
| 2658_RPA2672_CDS;__3 | 0.16434 | 0.05644 | 0.17815 | -0.34343 |
| 2659_RPA2673_CDS;__3 | -0.13192 | 0.02448 | -0.05068 | -0.00747 |
| 2660_RPA2674_CDS;__3 | -0.16105 | 0.01541 | 0.05091 | 0.00450 |
| 2661_RPA2675_CDS;__3 | -0.14518 | 0.05921 | 0.06770 | -0.04966 |
| 2662_RPA2676_CDS;__3 | 0.11480 | 0.07914 | 0.12384 | 0.02551 |
| 2663_RPA2677_CDS;__3 | -0.04965 | 0.08936 | 0.03721 | 0.09380 |
| 2664_RPA2678_CDS;__3 | 0.16781 | 0.09658 | 0.10308 | 0.00445 |
| 2665_RPA2679_CDS;__3 | 0.06412 | 0.06615 | 0.11600 | 0.01587 |
| 2666_RPA2680_CDS;__3 | 0.07753 | 0.05547 | 0.12442 | 0.02640 |
| 2667_RPA2681_CDS;__3 | -0.17778 | 0.07071 | -0.07102 | -0.02806 |
| 2668_RPA2682_uahA;__ | 0.07792 | 0.01199 | -0.00667 | -0.17322 |
| 2669_RPA2683_dur1;__ | 0.35175 | -0.41033 | -0.10162 | 0.16837 |
| 2670_RPA2684_CDS;__3 | -0.14596 | -0.11090 | -0.01239 | 0.03200 |
| 2671_RPA2685_CDS;__3 | -0.02770 | -0.04760 | 0.12514 | -0.16759 |
| 2672_RPA2686_dapA;__ | -0.13516 | -0.13762 | -0.05999 | -0.01303 |
| 2673_RPA2687_mscL;__ | -0.05305 | -0.01276 | -0.02963 | -0.01912 |
| 2674_RPA2688_SmpB;__ | -0.23781 | -0.00053 | -0.04918 | 0.03863 |
| 2675_RPA2689_CDS;__3 | 0.07643 | -0.28443 | 0.20750 | 0.00568 |
| 2676_RPA2690_CDS;__3 | -0.08992 | 0.07196 | 0.03014 | 0.06267 |
| 2677_RPA2691_CDS;__3 | -0.10927 | 0.06227 | -0.22205 | -0.12453 |
| 2678_RPA2692_rnpO;__ | -0.08801 | 0.07206 | -0.10939 | -0.02871 |
| 2679_RPA2693_relA;__ | -0.19126 | 0.07535 | -0.05442 | -0.04007 |
| 2680_RPA2694_pdxJ;__ | 0.03195 | -0.18425 | -0.18410 | 0.03760 |
| 2681_RPA2695_acpS;__ | -0.13145 | 0.04000 | 0.03883 | 0.07246 |
| 2682_RPA2696_lepB;__ | -0.23249 | 0.10058 | -0.10933 | 0.06365 |
| 2683_RPA2697_CDS;__3 | -0.04577 | 0.07663 | 0.00823 | -0.23111 |

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| 2684_RPA2698_era;__3 | -0.18572 | 0.03407 | 0.04463 | 0.03319 |
| 2685_RPA2699_CDS;__3 | -0.19191 | 0.08650 | -0.03564 | 0.09530 |
| 2686_RPA2700_CDS;__3 | -0.02081 | -0.51189 | -0.00166 | 0.02833 |
| 2687_RPA2701_CDS;__3 | -0.05037 | 0.04500 | -0.13326 | -0.00433 |
| 2688_RPA2702_CDS;__3 | 0.29526 | 0.07766 | 0.14428 | 0.15632 |
| 2689_RPA2703_parC;__ | -0.22596 | 0.06776 | -0.00430 | 0.06085 |
| 2690_RPA2704_CDS;__3 | -0.16785 | 0.01029 | 0.08730 | 0.01301 |
| 2691_RPA2705_CDS;__3 | 0.34748 | 0.04124 | 0.24702 | -0.03118 |
| 2692_RPA2706_CDS;__3 | -0.05375 | 0.03903 | 0.08409 | -0.01027 |
| 2693_RPA2707_CDS;__3 | 0.43575 | 0.15938 | 0.00380 | -0.01430 |
| 2694_RPA2708_CDS;__3 | 0.48836 | 0.09746 | 0.03800 | -0.09634 |
| 2695_RPA4838_CDS;__3 | 0.41215 | 0.10982 | 0.12695 | 0.22321 |
| 2696_RPA2709_CDS;__3 | 0.42500 | 0.09098 | 0.15899 | -0.06720 |
| 2697_RPA2710_CDS;__3 | -0.21967 | 0.07116 | -0.04537 | 0.01680 |
| 2698_RPA2711_CDS;__3 | -0.01292 | -0.21978 | 0.00290 | -0.00704 |
| 2699_RPA2712_hemB;__ | -0.28862 | 0.08735 | -0.13393 | -0.06050 |
| 2700_RPA2713_CDS;__3 | -0.01825 | -0.02767 | 0.11549 | 0.14842 |
| 2701_RPA2714_CDS;__3 | -0.21635 | 0.05681 | -0.01188 | 0.02189 |
| 2702_RPA2715_CDS;__3 | -0.05490 | 0.01769 | -0.10537 | 0.03629 |
| 2703_RPA2716_CDS;__3 | -0.01828 | -0.00561 | 0.01649 | 0.15477 |
| 2704_RPA2717_CDS;__3 | -0.04824 | 0.03941 | 0.20025 | 0.08890 |
| 2705_RPA2718_CDS;__3 | 0.07848 | -0.05507 | 0.13392 | 0.07219 |
| 2706_RPA2719_CDS;__3 | -0.12252 | -0.05737 | 0.12945 | 0.09349 |
| 2707_RPA2720_CDS;__3 | -0.33427 | 0.05082 | -0.04751 | -0.00925 |
| 2708_RPA2721_CDS;__3 | 0.00530 | 0.03168 | 0.13966 | 0.18257 |
| 2709_RPA2722_CDS;__3 | 0.43572 | 0.23441 | -0.09806 | 0.22723 |
| 2710_RPA2723_CDS;__3 | -0.05081 | 0.10064 | 0.04183 | -0.19599 |
| 2711_RPA2724_glyA;__ | -0.19596 | 0.06660 | -0.03237 | 0.02922 |
| 2712_RPA2725_CDS;__3 | -0.23764 | 0.01267 | 0.14135 | -0.05263 |
| 2713_RPA2726_ribD;__ | -0.04574 | 0.08458 | 0.02026 | -0.01890 |
| 2714_RPA2727_ribC;__ | -0.23427 | 0.04150 | 0.07045 | 0.06962 |
| 2715_RPA2728_ribE;__ | -0.09518 | 0.07707 | 0.02719 | 0.11448 |
| 2716_RPA2729_CDS;__3 | -0.13036 | -0.01862 | 0.11599 | 0.09435 |
| 2717_RPA2730_thiL;__ | 0.12726 | 0.08852 | 0.09072 | 0.03690 |
| 2718_RPA2731_CDS;__3 | -0.33378 | 0.10516 | -0.24564 | -0.08693 |
| 2719_RPA2732_CDS;__3 | -0.16398 | -0.09955 | 0.32693 | 0.09295 |
| 2720_RPA2733_CDS;__3 | -0.31290 | 0.02996 | -0.20115 | -0.19661 |
| 2721_RPA2734_CDS;__3 | -0.13516 | -0.02073 | 0.03054 | 0.07196 |
| 2722_RPA2735_mexC;__ | 0.18942 | -0.47546 | -0.01009 | 0.05899 |
| 2723_RPA2736_mexD;__ | -0.00512 | -0.05644 | 0.01008 | -0.03023 |
| 2724_RPA2737_CDS;__3 | 0.01254 | 0.05368 | 0.18437 | -0.03157 |
| 2725_RPA2738_CDS;__3 | -0.14185 | -0.01606 | 0.16717 | 0.01402 |
| 2726_RPA2739_CDS;__3 | -0.02739 | -0.23767 | 0.03453 | 0.03573 |
| 2727_RPA2740_plsX;__ | -0.04206 | 0.06345 | -0.02023 | -0.00459 |
| 2728_RPA2741_fabH;__ | -0.15787 | 0.06450 | -0.02701 | -0.06189 |
| 2729_RPA2742_himA;__ | 0.04907 | 0.10025 | -0.02458 | 0.08222 |
| 2730_RPA2743_CDS;__3 | 0.05988 | 0.11691 | 0.09417 | -0.05642 |
| 2731_RPA2744_CDS;__3 | 0.00865 | -0.08498 | 0.16852 | 0.01524 |
| 2732_RPA2745_CDS;__3 | -0.06394 | 0.04108 | 0.12796 | -0.06399 |
| 2733_RPA2746_CDS;__3 | 0.02808 | 0.00932 | 0.31449 | -0.08379 |
| 2734_RPA2747_CDS;__3 | -0.05988 | -0.05266 | -0.05645 | -0.01245 |
| 2735_RPA2748_CDS;__3 | -0.11063 | -0.02097 | 0.01063 | 0.05117 |
| 2736_RPA2749_CDS;__3 | -0.07118 | 0.03083 | 0.11069 | 0.02884 |
| 2737_RPA2750_CDS;__3 | -0.18601 | 0.07132 | -0.02873 | -0.02858 |
| 2738_RPA2751_CDS;__3 | -0.05654 | -0.22953 | 0.00585 | 0.04490 |
| 2739_RPA2752_CDS;__3 | 0.01097 | -0.02512 | -0.00950 | -0.01253 |
| 2740_RPA2753_CDS;__3 | 0.03231 | 0.08867 | 0.04005 | -0.09459 |

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| 2741_RPA2754_CDS;__3 | 0.20485 | -0.17716 | 0.19334 | -0.08059 |
| 2742_RPA2755_CDS;__3 | -0.16778 | 0.01284 | -0.05572 | 0.04505 |
| 2743_RPA2756_CDS;__3 | 0.02094 | 0.06904 | 0.07110 | 0.10331 |
| 2744_RPA2757_CDS;__3 | 0.10169 | 0.00855 | -0.19202 | -0.06019 |
| 2745_RPA2758_CDS;__3 | -0.03339 | -0.03808 | 0.07412 | 0.09297 |
| 2746_RPA2759_CDS;__3 | 0.36101 | -0.18502 | 0.00218 | 0.11987 |
| 2747_RPA2760_CDS;__3 | 0.21137 | -0.09963 | 0.05065 | 0.03515 |
| 2748_RPA2761_CDS;__3 | 0.24182 | 0.09491 | 0.08660 | 0.14184 |
| 2749_RPA2762_CDS;__3 | 0.06851 | -0.21718 | -0.01907 | -0.01116 |
| 2750_RPA2763_CDS;__3 | -0.19411 | 0.05501 | 0.01008 | -0.03162 |
| 2751_RPA2764_CDS;__3 | -0.13183 | 0.03932 | 0.09968 | -0.00086 |
| 2752_RPA2765_CDS;__3 | -0.08657 | -0.08658 | -0.10229 | -0.08747 |
| 2753_RPA2766_CDS;__3 | 0.17978 | 0.01799 | 0.00881 | -0.10792 |
| 2754_RPA2767_rplM;__L | 0.00760 | 0.15337 | -0.25812 | -0.05262 |
| 2755_RPA2768_rpsI;__S | -0.25357 | 0.18226 | -0.32414 | -0.08536 |
| 2756_RPA2769_CDS;__3 | -0.00013 | -0.06732 | 0.06227 | 0.00499 |
| 2757_RPA2770_CDS;__3 | -0.12817 | 0.12852 | -0.16933 | 0.01733 |
| 2758_RPA2771_CDS;__3 | -0.06432 | 0.05841 | 0.07084 | 0.04967 |
| 2759_RPA2772_rlpA;__ | 0.11329 | 0.10851 | -0.01651 | -0.07030 |
| 2760_RPA2773_CDS;__3 | 0.06039 | -0.21947 | 0.04597 | -0.10735 |
| 2761_RPA2774_CDS;__3 | -0.12096 | 0.02995 | 0.14318 | 0.03025 |
| 2762_RPA2775_CDS;__3 | -0.00851 | 0.05349 | 0.10956 | 0.08870 |
| 2763_RPA2776_CDS;__3 | -0.11949 | 0.00604 | 0.11795 | 0.00124 |
| 2764_RPA2777_metG;__ | -0.25893 | 0.05174 | 0.03788 | -0.00306 |
| 2765_RPA2778_CDS;__3 | -0.14712 | 0.05746 | 0.01698 | -0.10783 |
| 2766_RPA2779_CDS;__3 | -0.16503 | 0.04612 | 0.02786 | -0.07336 |
| 2767_RPA2780_CDS;__3 | -0.20129 | 0.08733 | -0.05835 | 0.00434 |
| 2768_RPA2781_dctQ;__ | -0.13325 | -0.22164 | -0.03600 | 0.01408 |
| 2769_RPA2782_dctP;__ | -0.17763 | 0.07024 | -0.07674 | -0.08117 |
| 2770_RPA2783_CDS;__3 | 0.76941 | 0.04561 | 0.02023 | -0.05840 |
| 2771_RPA2784_CDS;__3 | 0.13498 | 0.08400 | 0.04374 | 0.11635 |
| 2772_RPA2785_CDS;__3 | 0.27201 | -0.30995 | 0.07468 | 0.06592 |
| 2773_RPA2786_CDS;__3 | 0.70760 | 0.17413 | -0.21981 | 0.08549 |
| 2774_RPA2787_CDS;__3 | 0.47485 | -0.27521 | -0.05393 | 0.03643 |
| 2775_RPA2788_CDS;__3 | 0.23058 | -0.09548 | 0.05097 | -0.03460 |
| 2776_RPA2789_phaA;__ | -0.11564 | -0.10833 | 0.04657 | -0.00351 |
| 2777_RPA2790_phaC;__ | -0.08977 | -0.07081 | 0.20828 | 0.19007 |
| 2778_RPA2791_phaD;__ | -0.05000 | -0.11993 | 0.10427 | 0.04361 |
| 2779_RPA2792_phaE;__ | -0.13298 | 0.05356 | 0.09107 | 0.01702 |
| 2780_RPA2793_phaF;__ | 0.00858 | 0.08198 | 0.13478 | -0.23864 |
| 2781_RPA2794_phaG;__ | -0.18208 | 0.05259 | 0.01079 | 0.01324 |
| 2782_RPA2795_CDS;__3 | 0.28116 | -0.06315 | 0.09486 | -0.26927 |
| 2783_RPA2796_glyA;__ | 0.07524 | 0.05453 | 0.05697 | 0.01705 |
| 2784_RPA2797_CDS;__3 | 0.12275 | 0.09277 | -0.03342 | -0.07833 |
| 2785_RPA2798_BenE;__ | 0.27331 | -0.12354 | -0.14954 | 0.05196 |
| 2786_RPA2799_pdxK;__ | 0.11834 | -0.01865 | 0.01095 | 0.04165 |
| 2787_RPA2800_CDS;__3 | 0.14351 | 0.05442 | 0.17945 | -0.08490 |
| 2788_RPA2801_CDS;__3 | 0.20283 | 0.23071 | -0.28841 | 0.09579 |
| 2789_RPA2802_CDS;__3 | -0.15100 | 0.05468 | 0.02889 | 0.06231 |
| 2790_RPA2803_CDS;__3 | -0.21957 | -0.01135 | 0.08814 | 0.11223 |
| 2791_RPA2804_CDS;__3 | 0.04643 | 0.08331 | 0.07708 | 0.02669 |
| 2792_RPA2805_nthA;__ | -0.09825 | 0.07934 | 0.00508 | 0.04760 |
| 2793_RPA2806_nthB;__ | 0.01232 | -0.00059 | -0.01501 | 0.02720 |
| 2794_RPA2807_CDS;__3 | 0.09512 | 0.07382 | 0.08046 | 0.07319 |
| 2795_RPA2808_CDS;__3 | 0.07074 | -0.05657 | 0.04251 | 0.09119 |
| 2796_RPA2809_CDS;__3 | 0.04802 | 0.04316 | 0.10174 | -0.02828 |
| 2797_RPA2810_CDS;__3 | -0.02525 | 0.09350 | -0.26027 | 0.01631 |

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| 2798_RPA2811_mazG;__ | -0.11460 | -0.45145 | -0.23316 | 0.10019 |
| 2799_RPA2812_CDS;__3 | -0.03892 | -0.00959 | 0.03076 | 0.08395 |
| 2800_RPA2813_CDS;__3 | -0.00580 | -0.53199 | -0.01444 | 0.12616 |
| 2801_RPA2814_ssb;__3 | -0.06834 | 0.11243 | -0.01133 | 0.12057 |
| 2802_RPA2815_CDS;__3 | 0.16822 | 0.21365 | -0.15108 | 0.14013 |
| 2803_RPA2816_uvrA;__ | -0.19392 | 0.09808 | -0.06543 | 0.01752 |
| 2804_RPA2817_CDS;__3 | 1.38819 | 0.10217 | -0.02395 | 0.12305 |
| 2805_RPA2818_CDS;__3 | -0.02484 | 0.09728 | 0.08456 | 0.15612 |
| 2806_RPA2819_CDS;__3 | 0.14277 | 0.09316 | 0.07533 | 0.18249 |
| 2807_RPA2820_CDS;__3 | 0.25427 | 0.09826 | 0.03919 | 0.14304 |
| 2808_RPA2821_CDS;__3 | -0.09888 | -0.01666 | 0.34472 | 0.11789 |
| 2809_RPA2822_CDS;__3 | -0.07485 | -0.03126 | -0.00171 | -0.00895 |
| 2810_RPA2823_CDS;__3 | -0.24767 | 0.05226 | 0.06065 | -0.03706 |
| 2811_RPA2824_CDS;__3 | 0.00233 | 0.03516 | 0.19363 | -0.01828 |
| 2812_RPA2825_CDS;__3 | -0.16612 | 0.02728 | -0.07819 | 0.04683 |
| 2813_RPA2826_CDS;__3 | -0.07109 | -0.00430 | 0.20668 | 0.09440 |
| 2814_RPA2827_gid;__3 | 0.04032 | 0.09916 | -0.01358 | 0.08761 |
| 2815_RPA2828_CDS;__3 | 0.00785 | -0.12659 | 0.04824 | 0.05899 |
| 2816_RPA2829_CDS;__3 | 0.08511 | -0.08561 | 0.19113 | 0.12325 |
| 2817_RPA2830_secF;__ | -0.12478 | -0.00158 | -0.07672 | -0.15345 |
| 2818_RPA2831_secD;__ | -0.12978 | 0.10326 | -0.09269 | -0.05650 |
| 2819_RPA2832_yajC;__ | -0.27387 | 0.00413 | -0.12384 | -0.02166 |
| 2820_RPA2833_CDS;__3 | 0.04598 | 0.09194 | 0.04191 | 0.06413 |
| 2821_RPA2834_CDS;__3 | -0.01123 | -0.18984 | -0.07282 | -0.00011 |
| 2822_RPA2835_CDS;__3 | 0.10194 | 0.04154 | 0.19508 | 0.02476 |
| 2823_RPA2836_CDS;__3 | 0.21572 | -0.04951 | 0.08727 | 0.00299 |
| 2824_RPA2837_lppB;__ | -0.03979 | 0.11610 | -0.12380 | -0.04521 |
| 2825_RPA2838_pimt;__ | 0.06442 | 0.08238 | 0.15729 | -0.30067 |
| 2826_RPA2839_CDS;__3 | -0.19633 | -0.00849 | 0.00546 | -0.22529 |
| 2827_RPA2840_CDS;__3 | 0.43279 | -0.15247 | -0.10792 | -0.16800 |
| 2828_RPA2841_surE;__ | -0.24891 | 0.03597 | -0.02784 | 0.00500 |
| 2829_RPA2844_CDS;__3 | 0.19044 | 0.13534 | 0.01039 | 0.00167 |
| 2830_RPA2845_serS;__ | -0.14500 | 0.07401 | -0.01599 | -0.05660 |
| 2831_RPA2846_CDS;__3 | 0.29859 | 0.03122 | 0.31143 | -0.09108 |
| 2832_RPA2847_tatC;__ | -0.27238 | 0.03428 | 0.08454 | 0.00121 |
| 2833_RPA2848_tatB;__ | -0.01241 | -0.01627 | 0.03395 | 0.03097 |
| 2834_RPA2849_tatAE;__ | -0.07084 | 0.07608 | -0.31643 | -0.33762 |
| 2835_RPA2850_CDS;__3 | -0.10273 | 0.04284 | -0.16671 | -0.13072 |
| 2836_RPA2851_CDS;__3 | -0.00112 | -0.04840 | 0.06356 | -0.27307 |
| 2837_RPA2852_CDS;__3 | 0.10184 | 0.11243 | -0.01878 | -0.00239 |
| 2838_RPA2853_CDS;__3 | -0.00804 | 0.07655 | -0.03288 | -0.08219 |
| 2839_RPA2854_argS;__ | -0.06650 | 0.09277 | -0.10312 | -0.00323 |
| 2840_RPA2855_CDS;__3 | -0.08269 | 0.04054 | 0.09322 | -0.09171 |
| 2841_RPA2856_CDS;__3 | -0.25153 | 0.06805 | 0.01276 | 0.06436 |
| 2842_RPA2857_CDS;__3 | -0.10966 | -0.03413 | 0.06268 | 0.04839 |
| 2843_RPA2858_CDS;__3 | -0.12885 | 0.03180 | 0.09426 | 0.00088 |
| 2844_RPA2859_CDS;__3 | 0.06018 | 0.02217 | 0.20061 | 0.01241 |
| 2845_RPA2860_CDS;__3 | 0.00840 | -0.16011 | 0.05964 | -0.01154 |
| 2846_RPA2861_xth;__3 | 0.02972 | 0.05708 | 0.16800 | 0.00736 |
| 2847_RPA2862_CDS;__3 | -0.12435 | -0.01763 | 0.01500 | 0.03676 |
| 2848_RPA2863_CDS;__3 | -0.17212 | -0.04270 | -0.03702 | 0.04795 |
| 2849_RPA2864_CDS;__3 | 0.05359 | 0.07632 | 0.01457 | 0.00042 |
| 2850_RPA2865_CDS;__3 | -0.12826 | 0.03679 | -0.11561 | 0.01713 |
| 2851_RPA2866_CDS;__3 | -0.14137 | -0.19118 | -0.20260 | -0.06008 |
| 2852_RPA2867_CDS;__3 | -0.02434 | 0.13662 | -0.16252 | -0.08335 |
| 2853_RPA2868_CDS;__3 | 0.04309 | 0.02393 | -0.01446 | -0.30306 |
| 2854_RPA2869_CDS;__3 | -0.05714 | 0.07842 | 0.00487 | -0.12055 |

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| 2855_RPA2870_CDS;__3 | -0.11607 | -0.05777 | 0.12073 | -0.06121 |
| 2856_RPA2871_CDS;__3 | -0.00407 | -0.01477 | 0.13310 | -0.14702 |
| 2857_RPA2872_CDS;__3 | 0.05770 | -0.54346 | 0.05446 | -0.08068 |
| 2858_RPA2873_CDS;__3 | -0.18842 | 0.05133 | 0.07653 | -0.00293 |
| 2859_RPA2874_eno;__3 | -0.33351 | -0.04242 | -0.18249 | 0.00648 |
| 2860_RPA2875_CDS;__3 | -0.21564 | 0.09201 | -0.07766 | 0.11951 |
| 2861_RPA2876_CDS;__3 | -0.02380 | 0.07785 | 0.02242 | 0.04221 |
| 2862_RPA2877_CDS;__3 | 0.07379 | 0.00899 | 0.03672 | 0.03322 |
| 2863_RPA2878_CDS;__3 | -0.04287 | 0.01897 | 0.09726 | 0.03066 |
| 2864_RPA2879_kdsA;__ | -0.19537 | -0.11406 | -0.09980 | -0.01039 |
| 2865_RPA2880_CDS;__3 | 0.05211 | 0.06020 | 0.05988 | -0.04667 |
| 2866_RPA2881_CDS;__3 | 0.22016 | 0.11541 | 0.05424 | -0.01573 |
| 2867_RPA2882_CDS;__3 | 0.17378 | 0.05846 | -0.04153 | 0.28447 |
| 2868_RPA2883_CDS;__3 | 0.05335 | 0.08219 | 0.12200 | 0.08735 |
| 2869_RPA2884_CDS;__3 | 0.07588 | -0.03796 | 0.07678 | 0.05988 |
| 2870_RPA2885_CDS;__3 | 0.27414 | 0.30471 | -0.71229 | -0.08383 |
| 2871_RPA2886_pyrG;__ | -0.22740 | 0.05341 | -0.00319 | -0.00759 |
| 2872_RPA2887_secG;__ | -0.00304 | 0.10586 | -0.40376 | -0.16022 |
| 2873_RPA2888_cbbJ,_t | 0.14637 | 0.15023 | -0.08948 | -0.01705 |
| 2874_RPA2889_CDS;__3 | -0.21432 | 0.00484 | -0.02370 | 0.04614 |
| 2875_RPA2890_trpD;__ | -0.20168 | 0.05868 | 0.01120 | 0.07440 |
| 2876_RPA2891_trpC;__ | -0.09061 | 0.07031 | 0.02541 | -0.00296 |
| 2877_RPA2892_moaC;__ | -0.01643 | 0.07933 | 0.08234 | 0.11854 |
| 2878_RPA2893_CDS;__3 | -0.06296 | 0.07868 | -0.00397 | 0.03946 |
| 2879_RPA2894_CDS;__3 | 0.36929 | 0.04188 | -0.01359 | 0.10011 |
| 2880_RPA2895_CDS;__3 | -0.05727 | -0.00111 | -0.00426 | -0.13651 |
| 2881_RPA2896_CDS;__3 | 0.07309 | 0.08242 | 0.12029 | -0.32382 |
| 2882_RPA2897_motB2;__ | -0.04522 | 0.08776 | -0.01086 | -0.02349 |
| 2883_RPA2898_CDS;__3 | -0.18498 | 0.01573 | -0.06774 | 0.07275 |
| 2884_RPA2899_CDS;__3 | -0.08623 | 0.06604 | 0.11342 | 0.07646 |
| 2885_RPA2900_CDS;__3 | 0.13449 | 0.02212 | 0.03691 | -0.01250 |
| 2886_RPA2901_CDS;__3 | -0.05792 | 0.03447 | 0.06652 | 0.04539 |
| 2887_RPA2902_moeA;__ | -0.09406 | 0.07342 | 0.02106 | 0.00328 |
| 2888_RPA2903_lexA;__ | 0.06518 | 0.02374 | -0.01565 | 0.04369 |
| 2889_RPA2904_CDS;__3 | 0.04683 | 0.03462 | 0.15063 | 0.03860 |
| 2890_RPA2905_glnS;__ | -0.20695 | 0.01271 | 0.08234 | -0.00681 |
| 2891_RPA2906_gltX;__ | -0.04784 | -0.16366 | -0.15925 | 0.03135 |
| 2892_RPA2907_gltA;__ | -0.13431 | 0.00702 | -0.12676 | -0.05933 |
| 2893_RPA2908_CDS;__3 | 0.17408 | 0.01610 | -0.15283 | -0.13640 |
| 2894_RPA2909_lpxB;__ | -0.02571 | -0.00789 | 0.21123 | 0.06659 |
| 2895_RPA2910_CDS;__3 | 0.05537 | -0.09504 | 0.08717 | 0.04221 |
| 2896_RPA2911_lpxA;__ | -0.17151 | -0.05237 | 0.06578 | -0.02359 |
| 2897_RPA2912_CDS;__3 | -0.15903 | 0.03399 | -0.00215 | -0.03295 |
| 2898_RPA2913_lpxD;__ | 0.16443 | 0.11605 | -0.01300 | -0.00348 |
| 2899_RPA2914_CDS;__3 | -0.12777 | -0.17500 | -0.26252 | -0.10207 |
| 2900_RPA2915_CDS;__3 | -0.04529 | -0.05967 | 0.13004 | -0.05449 |
| 2901_RPA2916_dxr;__ | 0.12977 | -0.32396 | -0.12754 | 0.02849 |
| 2902_RPA2917_cdsA;__ | 0.14984 | 0.09341 | 0.00186 | 0.04994 |
| 2903_RPA2918_uppS;__ | 0.03761 | 0.09908 | 0.00491 | -0.00874 |
| 2904_RPA2919_rrf;__3 | -0.15031 | 0.00538 | -0.11395 | -0.02265 |
| 2905_RPA2920_pyrH;__ | 0.02559 | 0.07131 | -0.03525 | -0.20997 |
| 2906_RPA2921_tsf;__3 | -0.22508 | 0.15001 | -0.25024 | -0.05860 |
| 2907_RPA2922_rpsB;__ | -0.19216 | 0.10846 | -0.27232 | -0.18953 |
| 2908_RPA2923_CDS;__3 | 0.15624 | -0.20806 | -0.00279 | -0.04692 |
| 2909_RPA2924_dnaE;__ | -0.17755 | -0.07846 | -0.00428 | 0.00347 |
| 2910_RPA2925_CDS;__3 | 0.31355 | 0.10476 | 0.14961 | 0.08197 |
| 2911_RPA2926_CDS;__3 | -0.21507 | -0.03851 | -0.00500 | 0.04328 |

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| 2912_RPA2927_CDS;__3 | -0.07874 | 0.04143 | 0.07954 | 0.02743 |
| 2913_RPA2928_proS;__ | -0.23591 | 0.07257 | -0.04208 | 0.00752 |
| 2914_RPA2929_CDS;__3 | 0.25784 | -0.00376 | 0.15093 | 0.15870 |
| 2915_RPA2930_CDS;__3 | -0.01863 | 0.07322 | 0.02771 | 0.12561 |
| 2916_RPA2931_CDS;__3 | -0.19661 | 0.05760 | -0.17326 | -0.03451 |
| 2917_RPA2932_CDS;__3 | 0.35015 | 0.15796 | -0.08926 | 0.05689 |
| 2918_RPA2933_CDS;__3 | 0.01504 | 0.00512 | 0.00395 | -0.32126 |
| 2919_RPA2934_CDS;__3 | -0.18791 | 0.08258 | -0.04019 | 0.12212 |
| 2920_RPA2935_CDS;__3 | -0.16621 | 0.04501 | 0.00581 | -0.00796 |
| 2921_RPA2936_birA;__ | 0.06110 | -0.47188 | -0.11127 | 0.12074 |
| 2922_RPA2937_nuoN;__ | -0.22001 | 0.04351 | -0.05394 | -0.05183 |
| 2923_RPA2938_nuoM;__ | -0.28362 | 0.02606 | -0.02015 | -0.01014 |
| 2924_RPA2939_nuoL;__ | -0.17575 | -0.14257 | -0.05138 | 0.01590 |
| 2925_RPA2940_nuoK;__ | -0.26750 | -0.04530 | -0.08218 | -0.04009 |
| 2926_RPA2941_nuoJ;__ | -0.21073 | 0.02782 | -0.13540 | 0.03631 |
| 2927_RPA2942_nuoI;__ | -0.11537 | 0.09627 | -0.14299 | 0.02963 |
| 2928_RPA2943_nuoH;__ | -0.27290 | 0.05333 | -0.06800 | 0.00941 |
| 2929_RPA2944_nuoG;__ | -0.22301 | -0.12012 | -0.07349 | 0.03306 |
| 2930_RPA2945_nuoF;__ | -0.22811 | 0.05214 | -0.09640 | 0.01409 |
| 2931_RPA2946_CDS;__3 | 0.50265 | 0.23580 | -0.07640 | 0.28550 |
| 2932_RPA2947_nuoE;__ | -0.08755 | 0.06441 | 0.05194 | 0.10082 |
| 2933_RPA2948_fkbM;__ | -0.16878 | 0.06155 | 0.04259 | 0.04265 |
| 2934_RPA2949_nuoD;__ | -0.17378 | -0.11209 | -0.07121 | 0.03909 |
| 2935_RPA2950_nuoC;__ | -0.10596 | -0.06629 | 0.02137 | -0.05538 |
| 2936_RPA2951_nuoB;__ | -0.11760 | -0.11516 | -0.27013 | -0.07112 |
| 2937_RPA2952_nuoA;__ | 0.45898 | 0.38662 | -0.33347 | 0.40122 |
| 2938_RPA2953_hupA;__ | -0.26345 | 0.07129 | -0.27667 | 0.08558 |
| 2939_RPA2954_pepT;__ | -0.00590 | -0.09470 | 0.00017 | -0.02025 |
| 2940_RPA2955_mex;__ | -0.01391 | 0.10746 | -0.05275 | 0.02502 |
| 2941_RPA2956_mexF;__ | -0.17908 | -0.12586 | -0.02131 | 0.05482 |
| 2942_RPA2957_CDS;__3 | -0.09613 | 0.07602 | 0.03142 | 0.00542 |
| 2943_RPA2958_CDS;__3 | 0.31306 | -0.14970 | -0.04846 | -0.18934 |
| 2944_RPA2959_lon;__3 | -0.23823 | 0.07088 | -0.07267 | -0.00136 |
| 2945_RPA2960_clpX;__ | -0.21036 | -0.02915 | -0.05687 | -0.16823 |
| 2946_RPA2961_clpP;__ | -0.20045 | 0.05091 | -0.05813 | -0.00550 |
| 2947_RPA2962_tig;__3 | -0.30403 | 0.03546 | -0.21902 | -0.06129 |
| 2948_RPA2963_CDS;__3 | 0.24949 | 0.00474 | -0.16115 | 0.03400 |
| 2949_RPA2964_CDS;__3 | -0.06058 | 0.05006 | 0.13047 | -0.02582 |
| 2950_RPA2965_yjeF;__ | -0.09404 | -0.15543 | 0.08465 | -0.00054 |
| 2951_RPA2966_glnB;__ | -0.06761 | 0.06941 | -0.07737 | 0.24987 |
| 2952_RPA2967_glnA;__ | -0.35022 | 0.10815 | -0.22045 | -0.05645 |
| 2953_RPA2968_ybiH;__ | 0.07998 | 0.14299 | 0.03429 | 0.03204 |
| 2954_RPA2969_CDS;__3 | -0.19591 | 0.02658 | -0.16448 | -0.01275 |
| 2955_RPA2970_bioA;__ | -0.12066 | 0.01002 | 0.15731 | 0.02881 |
| 2956_RPA2971_bioD;__ | 0.03266 | -0.49429 | -0.11457 | 0.08715 |
| 2957_RPA2972_bioF;__ | 0.04352 | 0.06926 | 0.06759 | -0.03959 |
| 2958_RPA2973_CDS;__3 | 0.12619 | 0.03577 | -0.03880 | -0.06871 |
| 2959_RPA2974_CDS;__3 | 0.15088 | 0.03567 | 0.16864 | -0.13262 |
| 2960_RPA2975_serA;__ | -0.24267 | 0.03322 | 0.03109 | 0.02435 |
| 2961_RPA2976_CDS;__3 | -0.12527 | 0.03104 | 0.07309 | 0.07481 |
| 2962_RPA2977_nrd;__3 | -0.31080 | 0.06200 | -0.10186 | 0.02781 |
| 2963_RPA2978_CDS;__3 | 1.22123 | 0.25696 | -0.09230 | 0.29348 |
| 2964_RPA2979_CDS;__3 | 0.25763 | 0.01074 | -0.06560 | -0.11073 |
| 2965_RPA2980_CDS;__3 | 0.16764 | 0.12804 | 0.01361 | 0.13630 |
| 2966_RPA2981_CDS;__3 | 0.36427 | -0.09265 | 0.29957 | 0.13928 |
| 2967_RPA2982_CDS;__3 | 0.16928 | 0.06371 | 0.11278 | 0.07407 |
| 2968_RPA2983_CDS;__3 | 0.12943 | 0.11550 | 0.04178 | 0.16624 |

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| 2969_RPA2984_CDS;__3 | 0.15601 | 0.11563 | 0.03975 | 0.00568 |
| 2970_RPA2985_CDS;__3 | -0.16411 | -0.04890 | 0.11442 | 0.10869 |
| 2971_RPA2986_CDS;__3 | -0.24563 | 0.02310 | 0.21383 | 0.05380 |
| 2972_RPA2987_CDS;__3 | -0.18374 | 0.01255 | 0.11956 | -0.03973 |
| 2973_RPA2988_yrkN;__ | -0.03160 | 0.10600 | -0.02932 | -0.15924 |
| 2974_RPA2989_CDS;__3 | -0.13913 | 0.03709 | 0.06933 | 0.03444 |
| 2975_RPA2990_CDS;__3 | -0.00307 | 0.09074 | 0.02186 | -0.08078 |
| 2976_RPA2991_CDS;__3 | 0.17373 | 0.11712 | -0.06921 | -0.24434 |
| 2977_RPA2992_CDS;__3 | 0.00827 | 0.05390 | 0.07156 | -0.05357 |
| 2978_RPA2993_CDS;__3 | 0.09629 | -0.01670 | 0.36834 | 0.07479 |
| 2979_RPA2994_CDS;__3 | -0.07586 | -0.08310 | 0.25574 | -0.17919 |
| 2980_RPA2995_nuoLi;__ | -0.04325 | -0.08114 | 0.02053 | 0.08737 |
| 2981_RPA2996_CDS;__3 | 0.08148 | -0.01350 | 0.01200 | -0.08019 |
| 2982_RPA2997_CDS;__3 | 0.54115 | -0.32445 | -0.28566 | 0.32668 |
| 2983_RPA2998_dapA;__ | 0.40250 | 0.03777 | -0.09020 | 0.09383 |
| 2984_RPA2999_ptsN2;__ | 0.08876 | 0.03966 | 0.05106 | 0.01387 |
| 2985_RPA3000_kdpE;__ | 0.11099 | -0.04066 | 0.15654 | -0.12955 |
| 2986_RPA3001_kdpD;__ | 0.03186 | 0.05790 | 0.08144 | -0.06338 |
| 2987_RPA3002_kdpC;__ | 0.10026 | -0.03204 | 0.12389 | -0.05317 |
| 2988_RPA3003_kdpB;__ | -0.07945 | 0.05969 | -0.01712 | 0.02675 |
| 2989_RPA3004_kdpA;__ | -0.03463 | -0.06857 | -0.07971 | -0.01165 |
| 2990_RPA3005_CDS;__3 | 0.73227 | 0.09867 | 0.15951 | 0.03244 |
| 2991_RPA3006_CDS;__3 | 0.63574 | 0.24468 | -0.13145 | 0.15833 |
| 2992_RPA3007_CDS;__3 | 0.41979 | -0.09378 | -0.05323 | 0.17439 |
| 2993_RPA3008_kup;__3 | 0.04618 | 0.02161 | 0.18325 | -0.01702 |
| 2994_RPA3009_pucBc;__ | -0.12917 | -0.07361 | -0.00351 | 0.10833 |
| 2995_RPA3011_CDS;__3 | 0.44789 | 0.18956 | -0.05047 | -0.04083 |
| 2996_RPA3012_pucAd;__ | 0.05509 | 0.11479 | -0.48235 | -0.48826 |
| 2997_RPA3013_pucBd;__ | -0.03582 | -0.10437 | 0.04937 | -0.09002 |
| 2998_RPA3014_CDS;__3 | 0.14756 | -0.01052 | 0.10970 | 0.05005 |
| 2999_RPA3015_phyB1;__ | 0.10089 | 0.03223 | 0.03690 | 0.11291 |
| 3000_RPA3016_phyB2;__ | 0.13165 | 0.03927 | 0.01480 | 0.07657 |
| 3001_RPA3017_rphyB;__ | -0.04664 | -0.02364 | -0.01460 | 0.05219 |
| 3002_RPA3018_CDS;__3 | 0.09969 | 0.08650 | 0.11726 | 0.13406 |
| 3003_RPA3020_mexE;__ | 0.04339 | -0.00372 | 0.02802 | -0.04000 |
| 3004_RPA3021_CDS;__3 | -0.06826 | -0.26999 | -0.03089 | 0.09431 |
| 3005_RPA3022_CDS;__3 | -0.01810 | -0.02297 | 0.01772 | -0.17606 |
| 3006_RPA3023_CDS;__3 | 0.10781 | -0.07297 | 0.14474 | 0.04634 |
| 3007_RPA3024_CDS;__3 | 0.12204 | -0.00456 | 0.00300 | 0.21138 |
| 3008_RPA3025_CDS;__3 | 0.40876 | -0.00928 | -0.00831 | -0.07164 |
| 3009_RPA3026_CDS;__3 | 0.12364 | -0.05449 | 0.08879 | 0.14184 |
| 3010_RPA3027_kup;__ | -0.13408 | 0.01896 | 0.11904 | -0.08615 |
| 3011_RPA3028_CDS;__3 | 0.27893 | 0.12756 | 0.03881 | -0.05494 |
| 3012_RPA3029_CDS;__3 | 0.85993 | 0.34781 | -0.37430 | 0.62430 |
| 3013_RPA3030_CDS;__3 | 0.26376 | 0.07899 | -0.18334 | 0.01509 |
| 3014_RPA3031_CDS;__3 | -0.06164 | 0.09673 | -0.00388 | 0.11000 |
| 3015_RPA3032_CDS;__3 | 0.16887 | 0.01067 | 0.27849 | -0.19784 |
| 3016_RPA3033_argE;__ | 0.01590 | -0.16622 | 0.09343 | 0.01020 |
| 3017_RPA3034_CDS;__3 | 0.14383 | -0.20573 | -0.22337 | -0.04922 |
| 3018_RPA3035_CDS;__3 | 0.00775 | 0.07724 | 0.10882 | 0.12246 |
| 3019_RPA3036_CDS;__3 | 0.54818 | 0.19670 | -0.19200 | -0.04201 |
| 3020_RPA3037_CDS;__3 | 0.05197 | 0.13685 | -0.13373 | 0.08093 |
| 3021_RPA3038_CDS;__3 | 0.10362 | 0.09184 | -0.02701 | 0.01568 |
| 3022_RPA3039_CDS;__3 | -0.10170 | 0.08320 | -0.01550 | 0.01577 |
| 3023_RPA3040_CDS;__3 | 0.01216 | -0.20004 | 0.01783 | -0.00698 |
| 3024_RPA3041_CDS;__3 | 0.11300 | 0.07579 | 0.12408 | 0.20364 |
| 3025_RPA3042_mao;__3 | -0.21807 | -0.03139 | -0.06145 | -0.00861 |

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| 3026_RPA3043_aspS;__ | -0.26131 | 0.07467 | -0.11351 | -0.02061 |
| 3027_RPA3044_CDS;__3 | -0.09928 | 0.04112 | 0.09490 | 0.04661 |
| 3028_RPA3045_rnd;__3 | -0.16221 | 0.07321 | -0.01525 | -0.06354 |
| 3029_RPA3046_CDS;__3 | -0.10482 | -0.09754 | 0.06487 | 0.06567 |
| 3030_RPA3047_CDS;__3 | -0.12365 | 0.03207 | 0.08276 | -0.03054 |
| 3031_RPA3048_CDS;__3 | -0.09580 | 0.05460 | 0.04180 | 0.00623 |
| 3032_RPA3049_CDS;__3 | 0.01590 | 0.05175 | 0.10651 | 0.08107 |
| 3033_RPA3050_CDS;__3 | 0.10007 | 0.06768 | 0.11765 | 0.07163 |
| 3034_RPA3051_purM;__ | -0.23917 | 0.09258 | -0.03971 | 0.09633 |
| 3035_RPA3052_purN;__ | -0.00542 | 0.10715 | -0.03212 | 0.10839 |
| 3036_RPA3053_csp;__3 | 0.25368 | 0.06304 | -0.25681 | -0.10636 |
| 3037_RPA3054_CDS;__3 | 0.26245 | 0.05183 | -0.08783 | 0.01496 |
| 3038_RPA3055_CDS;__3 | 0.15574 | 0.15175 | 0.06569 | 0.13315 |
| 3039_RPA3056_CDS;__3 | -0.28899 | 0.03271 | -0.22830 | 0.00736 |
| 3040_RPA3057_CDS;__3 | -0.05040 | -0.22584 | 0.02206 | -0.05663 |
| 3041_RPA3058_CDS;__3 | 0.02891 | -0.25684 | -0.16782 | 0.04757 |
| 3042_RPA3059_CDS;__3 | -0.11381 | 0.00078 | 0.13060 | 0.06004 |
| 3043_RPA3060_CDS;__3 | -0.20454 | 0.07792 | -0.09187 | -0.03086 |
| 3044_RPA3061_CDS;__3 | -0.06378 | -0.49518 | -0.10876 | 0.06118 |
| 3045_RPA3062_CDS;__3 | 0.18922 | 0.11514 | 0.00102 | -0.10149 |
| 3046_RPA3063_CDS;__3 | -0.09638 | -0.03553 | -0.04041 | -0.02711 |
| 3047_RPA3064_CDS;__3 | 0.03306 | -0.23001 | 0.04123 | 0.05721 |
| 3048_RPA3065_pdxA;__ | 0.38321 | -0.07821 | -0.02460 | -0.09300 |
| 3049_RPA3066_ksgA;__ | 0.23937 | 0.10969 | 0.12347 | 0.02879 |
| 3050_RPA3067_CDS;__3 | -0.02509 | 0.07393 | -0.29996 | -0.14940 |
| 3051_RPA3068_CDS;__3 | 0.45505 | -0.07257 | -0.20955 | -0.11855 |
| 3052_RPA3069_kguA;__ | 0.09495 | 0.00560 | 0.07835 | -0.01211 |
| 3053_RPA3070_CDS;__3 | -0.05338 | 0.09588 | -0.02974 | -0.05790 |
| 3054_RPA3071_CDS;__3 | 0.02979 | 0.01763 | -0.01159 | -0.04576 |
| 3055_RPA3072_fabF;__ | -0.00896 | 0.08433 | -0.09417 | -0.02762 |
| 3056_RPA3073_acpP;__ | 0.13963 | 0.04642 | 0.31098 | -0.22070 |
| 3057_RPA3074_fabG;__ | -0.03051 | -0.08892 | -0.07918 | -0.13027 |
| 3058_RPA3075_fabD;__ | -0.05786 | -0.22236 | -0.08052 | -0.00649 |
| 3059_RPA3076_CDS;__3 | 0.24795 | -0.02837 | 0.04007 | 0.09225 |
| 3060_RPA3077_RPS6;__ | -0.09700 | 0.03160 | -0.23002 | -0.10794 |
| 3061_RPA3078_RPS18;__ | -0.14881 | 0.11966 | -0.15569 | -0.02167 |
| 3062_RPA3079_CDS;__3 | -0.03031 | -0.22062 | 0.03489 | 0.11175 |
| 3063_RPA3080_RPL9;__ | -0.31674 | 0.02442 | -0.22743 | -0.14251 |
| 3064_RPA3081_CDS;__3 | 0.21407 | 0.12949 | -0.02885 | 0.01600 |
| 3065_RPA3082_cfa;__3 | 0.01991 | -0.04666 | 0.03498 | 0.10071 |
| 3066_RPA3083_CDS;__3 | -0.25270 | 0.09317 | -0.00993 | 0.11136 |
| 3067_RPA3084_dnaB;__ | -0.18616 | 0.12044 | -0.14571 | -0.05066 |
| 3068_RPA3085_CDS;__3 | -0.16165 | 0.06937 | -0.00448 | -0.00577 |
| 3069_RPA3086_CDS;__3 | -0.20796 | -0.00160 | -0.16950 | -0.15845 |
| 3070_RPA3087_CDS;__3 | -0.02025 | 0.01919 | 0.13355 | 0.03958 |
| 3071_RPA3088_CDS;__3 | 0.00869 | 0.10848 | -0.01222 | 0.07813 |
| 3072_RPA3089_RadA;__ | -0.02361 | -0.15504 | -0.03706 | 0.01695 |
| 3073_RPA3090_CDS;__3 | -0.03425 | -0.02273 | -0.05949 | -0.00003 |
| 3074_RPA3091_purF;__ | -0.23443 | -0.02419 | -0.13472 | 0.00389 |
| 3075_RPA3092_CDS;__3 | -0.17080 | 0.13614 | -0.23864 | -0.02564 |
| 3076_RPA3093_CDS;__3 | -0.11226 | 0.13950 | -0.16107 | -0.02633 |
| 3077_RPA3094_CDS;__3 | -0.00416 | -0.23557 | 0.06079 | 0.00634 |
| 3078_RPA3095_CDS;__3 | -0.03360 | -0.46288 | -0.21653 | -0.00127 |
| 3079_RPA3096_CDS;__3 | 0.14383 | -0.38586 | -0.26109 | 0.12651 |
| 3080_RPA3097_CDS;__3 | 0.15229 | -0.44716 | -0.17494 | -0.03563 |
| 3081_RPA3098_panB;__ | -0.11227 | 0.07154 | -0.13605 | -0.09420 |
| 3082_RPA3099_CDS;__3 | -0.22183 | 0.01017 | -0.13365 | -0.04492 |

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| 3083_RPA3100_CDS;__3 | -0.04268 | 0.05650 | 0.08615 | 0.07659 |
| 3084_RPA3101_CDS;__3 | 0.28800 | 0.04088 | 0.08117 | 0.02812 |
| 3085_RPA3102_CDS;__3 | -0.04453 | 0.02220 | -0.24662 | -0.09194 |
| 3086_RPA3103_CDS;__3 | 0.93969 | 0.26486 | -0.11388 | 0.23168 |
| 3087_RPA3104_gatB;__ | -0.15059 | 0.09191 | -0.09259 | 0.01038 |
| 3088_RPA3105_CDS;__3 | -0.04944 | -0.01560 | -0.03277 | 0.01736 |
| 3089_RPA3106_CDS;__3 | 0.09347 | 0.07762 | 0.07135 | -0.08793 |
| 3090_RPA3107_GatA;__ | -0.23290 | 0.05618 | -0.07230 | -0.01658 |
| 3091_RPA3108_CDS;__3 | 0.57459 | -0.40033 | -0.31088 | 0.02006 |
| 3092_RPA3109_CDS;__3 | 0.29797 | 0.10465 | -0.12506 | 0.07399 |
| 3093_RPA3110_CDS;__3 | -0.15765 | -0.03902 | 0.33245 | 0.06373 |
| 3094_RPA3111_gatC;__ | -0.16946 | -0.05525 | -0.10572 | -0.10991 |
| 3095_RPA3112_CDS;__3 | -0.03322 | -0.08471 | 0.09934 | 0.08987 |
| 3096_RPA3113_CDS;__3 | -0.07358 | 0.08080 | 0.04334 | 0.14880 |
| 3097_RPA3114_CDS;__3 | -0.04591 | 0.10874 | -0.04112 | 0.02516 |
| 3098_RPA3115_CDS;__3 | -0.07699 | -0.06587 | -0.12733 | -0.04851 |
| 3099_RPA3116_ipdC;__ | -0.14022 | -0.07383 | 0.02579 | 0.02759 |
| 3100_RPA3117_pyrB;__ | -0.13664 | 0.06537 | 0.03080 | 0.04153 |
| 3101_RPA3118_pyr;__3 | -0.12366 | -0.06321 | -0.04844 | 0.05156 |
| 3102_RPA3119_CDS;__3 | -0.07738 | 0.04722 | 0.04560 | 0.11736 |
| 3103_RPA3120_DprA;__ | 0.00569 | -0.03305 | 0.10600 | -0.02350 |
| 3104_RPA3121_CDS;__3 | 0.03311 | 0.06413 | 0.08051 | 0.10436 |
| 3105_RPA3122_CDS;__3 | -0.10462 | 0.06091 | 0.06114 | -0.03672 |
| 3106_RPA3123_CDS;__3 | 0.39915 | -0.06694 | -0.16469 | 0.20311 |
| 3107_RPA3124_TopA;__ | -0.18173 | 0.09579 | -0.02896 | 0.07453 |
| 3108_RPA3125_RNR;__3 | 0.00871 | -0.45343 | -0.15107 | 0.08841 |
| 3109_RPA3126_CDS;__3 | 0.03673 | 0.09223 | -0.00770 | 0.08594 |
| 3110_RPA3127_CDS;__3 | -0.20349 | 0.07746 | 0.02815 | 0.08785 |
| 3111_RPA3128_CDS;__3 | -0.04467 | 0.01225 | 0.16211 | -0.03490 |
| 3112_RPA3129_RPL33;_ | -0.30939 | 0.04545 | -0.36323 | -0.19100 |
| 3113_RPA3130_CDS;__3 | 0.29855 | 0.06573 | -0.30554 | -0.21889 |
| 3114_RPA3131_CDS;__3 | 0.38567 | 0.14404 | -0.28823 | 0.01676 |
| 3115_RPA3132_CDS;__3 | -0.14366 | -0.10368 | 0.09307 | -0.09433 |
| 3116_RPA3133_CDS;__3 | 0.07814 | 0.09816 | 0.04534 | 0.11655 |
| 3117_RPA3134_CDS;__3 | 0.36301 | 0.07656 | 0.00640 | -0.12752 |
| 3118_RPA3135_dinP;__ | -0.14447 | -0.02914 | 0.01890 | 0.02435 |
| 3119_RPA3136_CDS;__3 | 0.02318 | -0.20790 | -0.02604 | 0.08680 |
| 3120_RPA3137_CDS;__3 | -0.19468 | 0.06925 | -0.07695 | -0.02359 |
| 3121_RPA3138_CDS;__3 | -0.07624 | 0.08902 | 0.12367 | 0.14261 |
| 3122_RPA3139_CDS;__3 | 0.02928 | -0.00055 | -0.02947 | -0.03878 |
| 3123_RPA3140_CDS;__3 | -0.09042 | -0.48933 | -0.15574 | -0.00199 |
| 3124_RPA3141_CDS;__3 | 0.04558 | 0.00890 | 0.08904 | -0.24140 |
| 3125_RPA3142_CDS;__3 | 0.11690 | 0.00062 | -0.06041 | -0.07536 |
| 3126_RPA3143_CDS;__3 | -0.09408 | 0.04061 | 0.12505 | 0.07340 |
| 3127_RPA3144_CDS;__3 | -0.01599 | 0.06724 | 0.02522 | 0.03779 |
| 3128_RPA3145_CDS;__3 | 0.25472 | -0.09062 | 0.15041 | -0.18086 |
| 3129_RPA3146_CDS;__3 | 0.18589 | -0.20389 | 0.05093 | 0.03682 |
| 3130_RPA3147_clpA;__ | -0.11486 | 0.10122 | -0.13543 | -0.02739 |
| 3131_RPA3148_CDS;__3 | 0.11104 | 0.14558 | -0.08943 | 0.07711 |
| 3132_RPA3149_CDS;__3 | 0.06719 | -0.13521 | -0.15812 | -0.00225 |
| 3133_RPA3150_CDS;__3 | -0.14558 | 0.12326 | -0.12794 | 0.02381 |
| 3134_RPA3151_CDS;__3 | 0.25065 | -0.48789 | -0.06193 | 0.06678 |
| 3135_RPA3152_CDS;__3 | -0.11257 | 0.00572 | 0.17151 | 0.07116 |
| 3136_RPA3153_CDS;__3 | -0.05873 | 0.02212 | 0.10845 | -0.07799 |
| 3137_RPA3154_CDS;__3 | 0.06018 | 0.03109 | 0.20591 | -0.22075 |
| 3138_RPA3155_panC;__ | -0.11630 | 0.09537 | -0.06674 | 0.07748 |
| 3139_RPA3156_CDS;__3 | -0.08322 | 0.00563 | 0.16282 | 0.06531 |

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| 3140_RPA3157_CDS;__3 | 0.10287 | 0.01234 | 0.15143 | -0.09527 |
| 3141_RPA3158_CDS;__3 | 0.16914 | 0.19648 | -0.23390 | -0.07381 |
| 3142_RPA3159_CDS;__3 | -0.16926 | 0.02990 | 0.00457 | -0.01502 |
| 3143_RPA3160_CDS;__3 | 0.05715 | -0.51914 | -0.03261 | 0.10651 |
| 3144_RPA3161_yafB;__ | -0.03634 | -0.05011 | 0.08667 | -0.02558 |
| 3145_RPA3162_CDS;__3 | 0.17836 | 0.02925 | 0.37651 | -0.41128 |
| 3146_RPA3163_mgtE;__ | -0.12015 | 0.08394 | -0.02586 | 0.07101 |
| 3147_RPA3164_CDS;__3 | -0.08142 | -0.18975 | -0.13288 | 0.01264 |
| 3148_RPA3165_CDS;__3 | 0.01836 | -0.06668 | -0.02165 | -0.00153 |
| 3149_RPA3166_CDS;__3 | 0.29806 | 0.05667 | 0.11774 | -0.03587 |
| 3150_RPA3167_CDS;__3 | 0.61637 | 0.28752 | -0.24054 | 0.14307 |
| 3151_RPA3168_CDS;__3 | 0.37764 | 0.14006 | -0.03999 | 0.30180 |
| 3152_RPA3169_lipB;__ | -0.11829 | 0.09952 | -0.07417 | 0.04633 |
| 3153_RPA3170_pdeA;__ | 0.08073 | 0.02190 | 0.03419 | 0.09089 |
| 3154_RPA3171_CDS;__3 | -0.13101 | -0.02824 | -0.00617 | -0.08347 |
| 3155_RPA3172_CDS;__3 | 0.05628 | 0.08906 | 0.07711 | 0.11478 |
| 3156_RPA3173_CDS;__3 | 0.18035 | -0.02682 | 0.37528 | -0.10733 |
| 3157_RPA3174_CDS;__3 | -0.11229 | 0.05934 | 0.01635 | -0.11055 |
| 3158_RPA3175_CDS;__3 | -0.25770 | 0.08422 | -0.14167 | -0.04000 |
| 3159_RPA3176_CDS;__3 | -0.13367 | 0.07993 | -0.01793 | 0.01455 |
| 3160_RPA3177_CDS;__3 | 0.19956 | 0.05978 | 0.16916 | 0.08070 |
| 3161_RPA3178_CDS;__3 | 0.07678 | 0.11504 | -0.00449 | 0.14426 |
| 3162_RPA3179_CDS;__3 | -0.04469 | 0.04127 | 0.17174 | 0.01013 |
| 3163_RPA3180_CDS;__3 | -0.31581 | 0.11857 | -0.28115 | 0.24272 |
| 3164_RPA3181_CDS;__3 | -0.12750 | -0.33681 | -0.01293 | 0.02942 |
| 3165_RPA3182_phzF;__ | -0.00954 | -0.06345 | 0.03182 | -0.03823 |
| 3166_RPA3183_CDS;__3 | -0.21123 | -0.10410 | -0.03197 | -0.03398 |
| 3167_RPA3184_CDS;__3 | 0.52234 | 0.08448 | -0.03780 | -0.06208 |
| 3168_RPA3185_CDS;__3 | -0.15193 | -0.01850 | 0.01008 | 0.00797 |
| 3169_RPA3186_CDS;__3 | -0.20311 | 0.00083 | 0.03425 | 0.11026 |
| 3170_RPA3187_CDS;__3 | -0.13016 | 0.05295 | 0.05294 | 0.03470 |
| 3171_RPA3188_CDS;__3 | -0.12343 | -0.07244 | 0.03570 | 0.05001 |
| 3172_RPA3189_CDS;__3 | -0.09158 | 0.01468 | 0.15576 | 0.02096 |
| 3173_RPA3190_CDS;__3 | -0.24901 | 0.00882 | 0.05819 | 0.00386 |
| 3174_RPA3191_CDS;__3 | -0.21414 | 0.07150 | -0.06134 | 0.00792 |
| 3175_RPA3192_CDS;__3 | -0.19919 | 0.04407 | 0.02542 | 0.02997 |
| 3176_RPA3193_CDS;__3 | -0.20932 | 0.05927 | 0.06266 | 0.08694 |
| 3177_RPA3194_CDS;__3 | -0.11128 | 0.11363 | -0.08918 | 0.07168 |
| 3178_RPA3195_CDS;__3 | -0.22751 | -0.04030 | -0.04727 | -0.01379 |
| 3179_RPA3196_CDS;__3 | 0.25488 | 0.10200 | -0.17058 | 0.08116 |
| 3180_RPA3197_CDS;__3 | 0.03739 | 0.12682 | -0.07297 | 0.05105 |
| 3181_RPA3198_CDS;__3 | 0.09451 | 0.03433 | 0.15896 | -0.00151 |
| 3182_RPA3199_CDS;__3 | -0.03722 | -0.19731 | 0.15789 | -0.03845 |
| 3183_RPA3200_CDS;__3 | -0.01838 | 0.03029 | 0.14465 | 0.03044 |
| 3184_RPA3201_CDS;__3 | -0.11563 | 0.06635 | -0.08888 | 0.01942 |
| 3185_RPA3202_CDS;__3 | 0.49611 | 0.16037 | 0.00381 | 0.12344 |
| 3186_RPA3203_pccB;__ | -0.29067 | 0.08384 | -0.09694 | 0.01738 |
| 3187_RPA3204_CDS;__3 | -0.15705 | 0.00386 | 0.22067 | 0.16236 |
| 3188_RPA3205_CDS;__3 | -0.04928 | 0.03863 | -0.11025 | 0.04069 |
| 3189_RPA3206_CDS;__3 | -0.11894 | -0.07295 | 0.09994 | 0.03481 |
| 3190_RPA3207_CDS;__3 | -0.15603 | -0.02300 | 0.04713 | -0.09461 |
| 3191_RPA3208_rluC;__ | -0.08156 | -0.51546 | -0.05438 | -0.00177 |
| 3192_RPA3209_CDS;__3 | 0.36824 | 0.04020 | 0.23115 | -0.13224 |
| 3193_RPA3210_CDS;__3 | 0.34757 | -0.07035 | 0.19667 | 0.08817 |
| 3194_RPA3211_CDS;__3 | -0.00315 | 0.07935 | 0.04925 | -0.01573 |
| 3195_RPA3212_CDS;__3 | 0.03960 | 0.10668 | -0.05564 | 0.07374 |
| 3196_RPA3213_CDS;__3 | 0.01460 | 0.10761 | -0.00441 | 0.04391 |

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| 3197_RPA3214_CDS;__3 | 0.00336 | 0.10008 | -0.05531 | 0.03159 |
| 3198_RPA3215_CDS;__3 | -0.13392 | 0.05739 | 0.07016 | 0.06754 |
| 3199_RPA3216_CDS;__3 | -0.11044 | -0.12383 | 0.06489 | -0.06116 |
| 3200_RPA3217_CDS;__3 | -0.17175 | 0.05449 | 0.06251 | -0.05633 |
| 3201_RPA3218_CDS;__3 | -0.33502 | -0.05243 | 0.02616 | 0.03959 |
| 3202_RPA3219_CDS;__3 | -0.15057 | 0.04134 | 0.08148 | 0.01419 |
| 3203_RPA3220_CDS;__3 | -0.19954 | 0.05064 | 0.02541 | -0.06574 |
| 3204_RPA3221_CDS;__3 | -0.10336 | -0.50323 | -0.09309 | 0.04696 |
| 3205_RPA3222_CDS;__3 | 0.18065 | -0.25051 | 0.07963 | -0.13232 |
| 3206_RPA3223_CDS;__3 | -0.16800 | 0.04738 | 0.06551 | 0.06150 |
| 3207_RPA3224_CDS;__3 | -0.19299 | 0.09270 | -0.10150 | 0.00923 |
| 3208_RPA3225_rplQ;__ | -0.33320 | 0.07911 | -0.06567 | -0.02161 |
| 3209_RPA3226_rpoA;__ | -0.32517 | 0.06721 | -0.14153 | -0.08436 |
| 3210_RPA3227_rpsK;__ | -0.30526 | 0.10212 | -0.31961 | -0.20356 |
| 3211_RPA3228_rpsM;__ | 0.08172 | 0.22327 | -0.35651 | -0.17222 |
| 3212_RPA3229_adk;__3 | -0.03358 | 0.12396 | -0.32176 | 0.05964 |
| 3213_RPA3230_secY;__ | -0.17208 | 0.05180 | -0.04149 | -0.06379 |
| 3214_RPA3231_rplO;__ | -0.31576 | 0.01496 | -0.25138 | -0.14103 |
| 3215_RPA3232_rpmD;__ | -0.07755 | -0.04903 | 0.05661 | 0.04196 |
| 3216_RPA3233_rpsE;__ | -0.24654 | 0.02963 | -0.24479 | -0.10463 |
| 3217_RPA3234_rplR;__ | -0.19939 | -0.06010 | -0.01838 | -0.06256 |
| 3218_RPA3235_rplF;__ | 0.17696 | 0.11091 | -0.29341 | -0.07856 |
| 3219_RPA3236_rpsH;__ | -0.19117 | 0.02921 | -0.19238 | -0.02533 |
| 3220_RPA3237_rpsN;__ | -0.04309 | 0.08823 | -0.15289 | -0.35198 |
| 3221_RPA3238_rplE;__ | -0.26869 | 0.04500 | -0.08458 | -0.04605 |
| 3222_RPA3239_rplX;__ | -0.27420 | 0.03566 | -0.34288 | -0.20781 |
| 3223_RPA3240_rplN;__ | -0.09058 | 0.10004 | -0.16061 | 0.00987 |
| 3224_RPA3241_rpsQ;__ | -0.11224 | 0.01979 | -0.00551 | 0.08469 |
| 3225_RPA3242_rpmC;__ | -0.03544 | 0.13437 | -0.46044 | -0.19962 |
| 3226_RPA3243_rplP;__ | -0.10380 | 0.09125 | -0.38765 | -0.09310 |
| 3227_RPA3244_rpsC;__ | -0.27180 | 0.09701 | -0.22501 | -0.09339 |
| 3228_RPA3245_rplV;__ | 0.05844 | 0.14908 | -0.26590 | -0.13985 |
| 3229_RPA3246_rpsS;__ | -0.29752 | 0.03164 | -0.32662 | -0.17328 |
| 3230_RPA3247_rplB;__ | -0.27137 | 0.08012 | -0.24189 | -0.16389 |
| 3231_RPA3248_rplW;__ | -0.19421 | 0.06406 | -0.22566 | 0.04473 |
| 3232_RPA3249_rplD;__ | -0.07835 | -0.39996 | -0.51418 | -0.16339 |
| 3233_RPA3250_rplC;__ | -0.06513 | 0.10677 | -0.20321 | -0.07119 |
| 3234_RPA3251_rpsJ;__ | -0.15235 | 0.00536 | -0.16478 | -0.16138 |
| 3235_RPA3252_tufA,_E | -0.31872 | 0.07231 | -0.26348 | -0.18013 |
| 3236_RPA3253_fusA,_E | -0.20539 | 0.01040 | -0.28858 | -0.10930 |
| 3237_RPA3254_rpsG;__ | -0.09392 | 0.09335 | -0.44570 | -0.20794 |
| 3238_RPA3255_rpsL;__ | -0.21169 | 0.06665 | -0.23543 | -0.19293 |
| 3239_RPA3256_CDS;__3 | -0.09681 | 0.05308 | 0.06816 | -0.04333 |
| 3240_RPA3257_CDS;__3 | 0.11209 | 0.08534 | 0.09386 | -0.12173 |
| 3241_RPA3258_CDS;__3 | 0.17783 | 0.08170 | 0.10207 | 0.13497 |
| 3242_RPA3259_CDS;__3 | 0.50978 | 0.12447 | 0.05593 | 0.00283 |
| 3243_RPA3260_CDS;__3 | 0.24379 | -0.01219 | -0.07080 | 0.07347 |
| 3244_RPA3261_hmrR;__ | 0.17275 | 0.13262 | -0.04141 | 0.02268 |
| 3245_RPA3262_CDS;__3 | -0.01978 | 0.04130 | 0.10756 | 0.05699 |
| 3246_RPA3263_phnB;__ | -0.07667 | 0.09286 | -0.05300 | -0.03187 |
| 3247_RPA3264_CDS;__3 | -0.10115 | -0.04050 | 0.30798 | -0.22838 |
| 3248_RPA3265_CDS;__3 | -0.22473 | -0.02148 | -0.00280 | -0.07869 |
| 3249_RPA3266_CDS;__3 | -0.26491 | 0.02208 | -0.05500 | 0.05244 |
| 3250_RPA3267_rpoC;__ | -0.26918 | 0.07660 | -0.18716 | -0.10658 |
| 3251_RPA3268_rpoB;__ | -0.27465 | 0.08413 | -0.19073 | -0.09358 |
| 3252_RPA3269_rplL;__ | -0.25357 | 0.04660 | -0.29697 | -0.10016 |
| 3253_RPA3270_rplJ;__ | 0.17247 | 0.16647 | -0.31963 | 0.13745 |

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| 3254_RPA3271_CDS;__3 | -0.09325 | 0.06626 | 0.07839 | -0.03524 |
| 3255_RPA3272_rplA;__ | -0.29908 | 0.09831 | -0.16382 | -0.02916 |
| 3256_RPA3273_rplK;__ | -0.05180 | 0.14211 | -0.26486 | -0.06023 |
| 3257_RPA3274_nusG;__ | -0.36589 | 0.01976 | -0.27107 | -0.10501 |
| 3258_RPA3275_secE;__ | 0.06400 | -0.03536 | 0.07280 | 0.01092 |
| 3259_RPA3276_CDS;__3 | 0.27839 | -0.03646 | 0.18493 | 0.11377 |
| 3260_RPA3277_exbD;__ | 0.46335 | 0.13256 | 0.17077 | -0.19992 |
| 3261_RPA3278_exbB;__ | 0.22051 | -0.27742 | -0.06328 | 0.02013 |
| 3262_RPA3279_pigA;__ | 0.28404 | -0.03560 | 0.19604 | -0.14032 |
| 3263_RPA3280_hasR;__ | 0.18920 | -0.02930 | 0.00294 | -0.07178 |
| 3264_RPA3281_CDS;__3 | 0.30174 | 0.02531 | -0.01919 | 0.05503 |
| 3265_RPA3282_CDS;__3 | 0.23478 | 0.08823 | 0.07677 | -0.04421 |
| 3266_RPA3283_tuf,__EF | -0.31872 | 0.07231 | -0.26348 | -0.18013 |
| 3267_RPA3284_CDS;__3 | -0.14846 | -0.19717 | -0.11572 | 0.04104 |
| 3268_RPA3285_CDS;__3 | -0.21300 | 0.07690 | -0.07305 | -0.06890 |
| 3269_RPA3286_CDS;__3 | -0.11035 | 0.06135 | 0.08579 | 0.06026 |
| 3270_RPA3287_CDS;__3 | -0.22731 | 0.09086 | -0.06388 | 0.05212 |
| 3271_RPA3288_CDS;__3 | -0.15933 | 0.06827 | 0.01421 | 0.07163 |
| 3272_RPA3289_CDS;__3 | -0.33959 | 0.08840 | -0.18500 | -0.02674 |
| 3273_RPA3290_CDS;__3 | -0.20044 | 0.04343 | 0.08780 | -0.14646 |
| 3274_RPA3291_CDS;__3 | -0.08255 | -0.18483 | 0.17550 | 0.01386 |
| 3275_RPA3292_CDS;__3 | -0.16679 | -0.02996 | -0.02625 | -0.03340 |
| 3276_RPA3293_CDS;__3 | -0.25876 | 0.04943 | 0.03072 | -0.03659 |
| 3277_RPA3294_CDS;__3 | -0.26361 | 0.01638 | 0.01309 | -0.02290 |
| 3278_RPA3295_CDS;__3 | -0.20239 | 0.10077 | -0.12225 | 0.05797 |
| 3279_RPA3296_CDS;__3 | -0.15762 | 0.01793 | 0.04601 | -0.00967 |
| 3280_RPA3297_CDS;__3 | -0.18621 | 0.16460 | -0.23787 | 0.04888 |
| 3281_RPA3298_CDS;__3 | -0.00036 | -0.15810 | 0.12416 | -0.06907 |
| 3282_RPA3299_CDS;__3 | -0.16905 | 0.04688 | 0.03618 | -0.02283 |
| 3283_RPA3300_CDS;__3 | 0.02126 | 0.05313 | 0.10356 | 0.09340 |
| 3284_RPA3301_CDS;__3 | -0.19259 | 0.02379 | -0.05241 | 0.06955 |
| 3285_RPA3302_CDS;__3 | 0.07694 | -0.42403 | -0.03675 | 0.22215 |
| 3286_RPA3303_CDS;__3 | -0.11360 | 0.07679 | 0.00722 | 0.05023 |
| 3287_RPA3304_fabG;__ | -0.22472 | 0.05154 | 0.01588 | 0.02624 |
| 3288_RPA3305_paaG;__ | -0.11157 | 0.14758 | -0.04787 | -0.08569 |
| 3289_RPA3306_nirK;__ | 0.16659 | 0.19072 | -0.14731 | -0.00014 |
| 3290_RPA3307_xth;__3 | -0.02595 | -0.03327 | 0.36924 | -0.07574 |
| 3291_RPA3308_CDS;__3 | -0.08249 | 0.11072 | -0.11642 | -0.09714 |
| 3292_RPA3309_CDS;__3 | -0.02857 | -0.42398 | -0.26014 | -0.12850 |
| 3293_RPA3310_katE;__ | -0.07802 | -0.10037 | -0.07007 | -0.03003 |
| 3294_RPA3311_CDS;__3 | -0.08871 | 0.01562 | 0.00827 | 0.03889 |
| 3295_RPA3312_CDS;__3 | -0.22381 | -0.03060 | 0.02021 | 0.07573 |
| 3296_RPA3313_CDS;__3 | -0.18470 | 0.10454 | -0.05921 | 0.04957 |
| 3297_RPA3314_degP;__ | -0.00618 | -0.04705 | 0.10141 | -0.02821 |
| 3298_RPA3315_CDS;__3 | -0.17914 | 0.02677 | 0.10485 | 0.06216 |
| 3299_RPA3316_CDS;__3 | 0.25683 | 0.14654 | -0.00170 | 0.13543 |
| 3300_RPA3317_CDS;__3 | 0.45310 | -0.09157 | -0.10315 | -0.15497 |
| 3301_RPA3318_CDS;__3 | 0.45396 | -0.04685 | 0.01601 | 0.23713 |
| 3302_RPA3319_CDS;__3 | 0.52116 | -0.05354 | 0.04044 | -0.03752 |
| 3303_RPA3320_CDS;__3 | 0.47896 | -0.00671 | -0.07463 | 0.08979 |
| 3304_RPA3321_algC;__ | -0.22240 | 0.06240 | -0.03123 | -0.04033 |
| 3305_RPA3322_manC,__c | -0.04355 | -0.13930 | -0.08837 | 0.04319 |
| 3306_RPA3323_CDS;__3 | 0.07972 | 0.05974 | 0.08243 | 0.06318 |
| 3307_RPA3324_CDS;__3 | 0.14427 | 0.03737 | 0.17524 | 0.12360 |
| 3308_RPA3325_CDS;__3 | 0.96179 | -0.36710 | 0.02121 | 0.06735 |
| 3309_RPA3326_CDS;__3 | 0.30840 | -0.00676 | 0.07739 | -0.08792 |
| 3310_RPA3327_CDS;__3 | 0.95971 | -0.28845 | -0.29191 | 0.22382 |

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| 3311_RPA3328_CDS;__3 | 0.26998 | 0.04391 | -0.05730 | 0.03833 |
| 3312_RPA3329_CDS;__3 | -0.14199 | 0.04384 | -0.26672 | -0.17014 |
| 3313_RPA3330_CDS;__3 | 0.76958 | 0.02833 | 0.19327 | 0.31824 |
| 3314_RPA3331_CDS;__3 | 0.78521 | 0.29744 | -0.01744 | 0.19573 |
| 3315_RPA3332_CDS;__3 | 0.14269 | -0.06088 | 0.23726 | 0.11019 |
| 3316_RPA3333_csgG;__ | 0.17184 | -0.13777 | -0.16857 | 0.04945 |
| 3317_RPA3334_CDS;__3 | 0.40846 | 0.29270 | -0.13930 | 0.18570 |
| 3318_RPA3335_CDS;__3 | 0.40089 | 0.04650 | 0.06088 | 0.01215 |
| 3319_RPA3336_CDS;__3 | 0.18532 | 0.07010 | 0.14832 | -0.15680 |
| 3320_RPA3337_CDS;__3 | 0.37666 | 0.12058 | 0.08049 | -0.09964 |
| 3321_RPA3338_CDS;__3 | 0.30655 | -0.03893 | 0.08422 | 0.05505 |
| 3322_RPA3339_mcyE;__ | 0.40579 | -0.03442 | -0.02600 | -0.00416 |
| 3323_RPA3340_CDS;__3 | 0.42466 | 0.01263 | 0.01883 | -0.07181 |
| 3324_RPA3341_CDS;__3 | 0.48553 | -0.01328 | -0.09022 | 0.08242 |
| 3325_RPA3342_CDS;__3 | 0.33827 | 0.12128 | 0.01381 | -0.02701 |
| 3326_RPA3343_mtfB;__ | 0.54209 | 0.21483 | 0.01253 | 0.03225 |
| 3327_RPA3344_CDS;__3 | 0.46609 | -0.03665 | -0.03387 | -0.05269 |
| 3328_RPA3345_CDS;__3 | 0.55304 | -0.02587 | -0.02305 | 0.17126 |
| 3329_RPA3346_CDS;__3 | 0.48588 | 0.04958 | -0.04447 | 0.09034 |
| 3330_RPA3347_CDS;__3 | 0.26535 | -0.05001 | -0.10633 | 0.06755 |
| 3331_RPA3348_CDS;__3 | 0.38266 | -0.20205 | 0.10318 | 0.10449 |
| 3332_RPA3349_CDS;__3 | 0.54686 | 0.03943 | 0.10903 | 0.16965 |
| 3333_RPA3350_CDS;__3 | 0.29122 | -0.10095 | -0.20296 | -0.01588 |
| 3334_RPA3351_CDS;__3 | 0.32080 | 0.10852 | 0.06983 | 0.08963 |
| 3335_RPA3352_CDS;__3 | 0.29180 | -0.01822 | 0.05619 | 0.15404 |
| 3336_RPA3353_CDS;__3 | 0.42430 | -0.00392 | -0.01123 | 0.03936 |
| 3337_RPA3354_CDS;__3 | 0.66080 | 0.21767 | -0.10486 | 0.11790 |
| 3338_RPA3355_CDS;__3 | 0.29125 | 0.16163 | -0.06634 | 0.06100 |
| 3339_RPA3356_CDS;__3 | 0.43642 | 0.19189 | -0.10293 | 0.15447 |
| 3340_RPA3357_CDS;__3 | 0.75325 | 0.25452 | -0.09918 | 0.12452 |
| 3341_RPA3358_CDS;__3 | 0.40662 | -0.00379 | 0.01170 | 0.15500 |
| 3342_RPA3359_CDS;__3 | 0.45555 | -0.26566 | -0.05285 | 0.06131 |
| 3343_RPA3360_pssN;__ | 0.41562 | -0.42671 | -0.17637 | -0.02141 |
| 3344_RPA3361_CDS;__3 | 0.87390 | 0.44177 | -0.20536 | 0.64262 |
| 3345_RPA3362_CDS;__3 | 0.46605 | -0.12886 | -0.10857 | -0.28703 |
| 3346_RPA3363_CDS;__3 | 0.38376 | -0.16827 | 0.00277 | -0.00332 |
| 3347_RPA3364_rrm;__3 | -0.13569 | 0.10417 | 0.02142 | 0.12140 |
| 3348_RPA3365_CDS;__3 | -0.23249 | 0.05945 | -0.03668 | 0.01015 |
| 3349_RPA3366_CDS;__3 | 0.01236 | -0.02469 | 0.06087 | 0.02022 |
| 3350_RPA3367_CDS;__3 | 0.05515 | 0.00361 | 0.06839 | 0.10441 |
| 3351_RPA3368_CDS;__3 | 0.13205 | 0.05688 | 0.06901 | 0.05039 |
| 3352_RPA3369_CDS;__3 | 0.14591 | -0.10552 | 0.16342 | 0.19903 |
| 3353_RPA3370_CDS;__3 | 0.46958 | -0.05188 | 0.04412 | -0.16398 |
| 3354_RPA3371_CDS;__3 | -0.15060 | 0.05261 | -0.12919 | -0.06986 |
| 3355_RPA3372_CDS;__3 | -0.08230 | -0.12102 | 0.01761 | 0.00096 |
| 3356_RPA3373_CDS;__3 | -0.30524 | 0.12331 | -0.47779 | -0.05201 |
| 3357_RPA3374_CDS;__3 | -0.03843 | -0.21241 | 0.00198 | 0.04521 |
| 3358_RPA3375_CDS;__3 | 0.38286 | 0.13692 | 0.07611 | 0.21002 |
| 3359_RPA3376_CDS;__3 | 0.47229 | 0.09324 | -0.05101 | -0.10500 |
| 3360_RPA3377_CDS;__3 | -0.20097 | -0.04305 | 0.09248 | 0.05201 |
| 3361_RPA3378_CDS;__3 | -0.09531 | 0.14286 | -0.13818 | -0.11890 |
| 3362_RPA3379_CDS;__3 | -0.17893 | -0.00959 | 0.10434 | 0.05769 |
| 3363_RPA3380_cheY3;__ | -0.35465 | 0.02809 | 0.02291 | 0.02153 |
| 3364_RPA3381_CDS;__3 | -0.20967 | 0.11290 | -0.02775 | 0.04640 |
| 3365_RPA3382_CDS;__3 | -0.14956 | 0.09138 | -0.05178 | -0.02174 |
| 3366_RPA3383_CDS;__3 | -0.11469 | 0.03345 | -0.17695 | 0.01248 |
| 3367_RPA3384_CDS;__3 | -0.16601 | 0.10059 | -0.04827 | 0.10794 |

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| 3368_RPA3385_nrtC;__ | -0.19150 | 0.02653 | 0.05310 | -0.01203 |
| 3369_RPA3386_CDS;__3 | -0.16896 | 0.07251 | -0.01673 | -0.00092 |
| 3370_RPA3387_CDS;__3 | -0.08923 | 0.02318 | 0.19650 | 0.04685 |
| 3371_RPA3388_CDS;__3 | -0.15892 | -0.00547 | -0.07247 | -0.00634 |
| 3372_RPA3389_CDS;__3 | 0.05998 | 0.05077 | -0.01209 | 0.08419 |
| 3373_RPA3390_his3;__ | -0.17149 | 0.14784 | -0.20768 | 0.02856 |
| 3374_RPA3391_gch1;__ | -0.29039 | 0.03949 | 0.03363 | 0.05187 |
| 3375_RPA3392_CDS;__3 | -0.21371 | 0.07953 | -0.05144 | 0.00270 |
| 3376_RPA3393_CDS;__3 | -0.03081 | -0.13037 | -0.03744 | -0.07404 |
| 3377_RPA3394_CDS;__3 | 0.26965 | -0.02557 | 0.03976 | -0.04625 |
| 3378_RPA3395_CDS;__3 | 0.00764 | 0.01406 | 0.03504 | -0.15665 |
| 3379_RPA3396_CDS;__3 | 0.23128 | 0.04116 | 0.06289 | -0.00398 |
| 3380_RPA3397_CDS;__3 | 0.58111 | 0.10716 | -0.01234 | 0.01744 |
| 3381_RPA3398_CDS;__3 | -0.12406 | 0.04010 | 0.00067 | -0.17685 |
| 3382_RPA3399_cspA;__ | 0.25606 | 0.19019 | -0.11027 | 0.32577 |
| 3383_RPA3400_CDS;__3 | 0.27624 | 0.06742 | 0.15379 | -0.22472 |
| 3384_RPA3401_CDS;__3 | 0.22652 | 0.13517 | -0.14073 | 0.13634 |
| 3385_RPA3402_CDS;__3 | -0.09137 | -0.16043 | 0.25230 | 0.06876 |
| 3386_RPA3403_CDS;__3 | 0.10193 | 0.05791 | 0.14247 | -0.17972 |
| 3387_RPA3404_CDS;__3 | -0.08343 | 0.03424 | 0.08965 | 0.08234 |
| 3388_RPA3405_CDS;__3 | -0.14052 | 0.01731 | 0.10906 | 0.03573 |
| 3389_RPA3406_thrS;__ | -0.32032 | 0.06949 | -0.06684 | 0.00160 |
| 3390_RPA3407_CDS;__3 | -0.01402 | 0.03855 | -0.01312 | 0.09602 |
| 3391_RPA3408_CDS;__3 | -0.19102 | 0.03155 | 0.08460 | 0.08748 |
| 3392_RPA3409_CDS;__3 | -0.06363 | 0.02406 | 0.16746 | 0.04137 |
| 3393_RPA3410_CDS;__3 | -0.12829 | 0.02159 | 0.14977 | -0.00715 |
| 3394_RPA3411_CDS;__3 | 0.02788 | 0.08138 | 0.06673 | 0.05988 |
| 3395_RPA3412_CDS;__3 | -0.07859 | -0.01731 | 0.05569 | 0.11928 |
| 3396_RPA3413_CDS;__3 | 0.05727 | 0.00755 | 0.15421 | -0.05865 |
| 3397_RPA3414_CDS;__3 | 0.00028 | -0.46898 | -0.14689 | 0.01968 |
| 3398_RPA3415_CDS;__3 | 0.05769 | 0.06828 | 0.09707 | 0.06712 |
| 3399_RPA3416_CDS;__3 | -0.25385 | 0.06102 | -0.08153 | 0.02458 |
| 3400_RPA3417_CDS;__3 | -0.05795 | -0.07584 | 0.11798 | -0.12467 |
| 3401_RPA3418_CDS;__3 | -0.00053 | 0.04298 | 0.18468 | 0.09788 |
| 3402_RPA3419_CDS;__3 | 0.15333 | 0.09119 | -0.00950 | -0.05549 |
| 3403_RPA3420_CDS;__3 | 0.04285 | 0.10394 | -0.02915 | 0.02870 |
| 3404_RPA3421_CDS;__3 | 0.01474 | -0.09617 | -0.01315 | 0.05635 |
| 3405_RPA3422_CDS;__3 | 0.19621 | -0.05089 | 0.14339 | 0.01604 |
| 3406_RPA3423_CDS;__3 | -0.12512 | 0.12161 | -0.23143 | -0.15168 |
| 3407_RPA3424_CDS;__3 | 0.03234 | 0.02102 | 0.08314 | -0.35212 |
| 3408_RPA3425_CDS;__3 | 0.08806 | 0.13839 | -0.10738 | -0.15685 |
| 3409_RPA3426_CDS;__3 | 0.36475 | 0.12705 | -0.21329 | -0.49492 |
| 3410_RPA3427_CDS;__3 | 0.25984 | 0.05370 | 0.10878 | 0.04890 |
| 3411_RPA3428_CDS;__3 | 0.07467 | 0.13979 | -0.31826 | 0.10833 |
| 3412_RPA3429_cysE;__ | -0.02666 | 0.05292 | 0.04201 | -0.11287 |
| 3413_RPA3430_CDS;__3 | 0.06265 | -0.44414 | -0.22136 | 0.04996 |
| 3414_RPA3431_CDS;__3 | 0.20298 | 0.11742 | 0.01047 | -0.14982 |
| 3415_RPA3432_CDS;__3 | -0.05480 | 0.06985 | -0.14780 | -0.07006 |
| 3416_RPA3433_CDS;__3 | 0.00562 | 0.07177 | 0.07887 | -0.09646 |
| 3417_RPA3434_CDS;__3 | 0.05913 | -0.20503 | -0.17663 | -0.00874 |
| 3418_RPA3435_CDS;__3 | -0.16738 | -0.49246 | -0.13647 | 0.07331 |
| 3419_RPA3436_CDS;__3 | 0.03600 | 0.01277 | 0.00997 | -0.11658 |
| 3420_RPA3437_CDS;__3 | 0.41497 | 0.07208 | -0.04312 | 0.01269 |
| 3421_RPA3438_CDS;__3 | 0.99299 | 0.24485 | 0.01164 | -0.02839 |
| 3422_RPA3439_CDS;__3 | -0.18954 | 0.04499 | 0.12879 | 0.00972 |
| 3423_RPA3440_CDS;__3 | -0.16984 | 0.04252 | 0.07317 | 0.00184 |
| 3424_RPA3441_CDS;__3 | -0.21860 | 0.08027 | -0.05291 | -0.06579 |

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| 3425_RPA3442_CDS;__3 | -0.10278 | 0.05620 | 0.08842 | -0.04292 |
| 3426_RPA3443_CDS;__3 | -0.13493 | 0.03977 | 0.05188 | 0.03758 |
| 3427_RPA3444_CDS;__3 | -0.03814 | 0.03862 | 0.15428 | 0.06102 |
| 3428_RPA3445_CDS;__3 | -0.15766 | 0.05703 | 0.07126 | 0.02274 |
| 3429_RPA3446_CDS;__3 | -0.16522 | 0.05179 | -0.04125 | -0.06975 |
| 3430_RPA3447_CDS;__3 | -0.01490 | -0.22974 | 0.05197 | 0.04804 |
| 3431_RPA3448_CDS;__3 | -0.14019 | -0.03579 | -0.04511 | 0.02281 |
| 3432_RPA3449_CDS;__3 | 0.45912 | 0.12073 | 0.21113 | 0.28050 |
| 3433_RPA3450_CDS;__3 | -0.28137 | -0.01413 | -0.18440 | -0.00888 |
| 3434_RPA3451_CDS;__3 | -0.13948 | 0.00287 | 0.16118 | 0.04984 |
| 3435_RPA3452_CDS;__3 | 0.03858 | -0.48028 | -0.11592 | 0.07876 |
| 3436_RPA3453_CDS;__3 | -0.11573 | 0.02933 | 0.11371 | -0.06252 |
| 3437_RPA3454_CDS;__3 | -0.29303 | 0.02043 | 0.08164 | 0.03879 |
| 3438_RPA3455_CDS;__3 | -0.17788 | -0.12609 | -0.01350 | -0.10755 |
| 3439_RPA3457_CDS;__3 | -0.05975 | 0.14868 | -0.12480 | 0.06763 |
| 3440_RPA3458_CDS;__3 | -0.15429 | 0.11521 | -0.11601 | -0.00974 |
| 3441_RPA3459_CDS;__3 | -0.17836 | 0.02049 | -0.00615 | 0.02366 |
| 3442_RPA3460_CDS;__3 | 0.00583 | 0.05333 | 0.07741 | 0.05667 |
| 3443_RPA3461_CDS;__3 | -0.02333 | -0.01175 | 0.26897 | 0.02583 |
| 3444_RPA3462_CDS;__3 | -0.02723 | -0.02259 | 0.05336 | 0.06436 |
| 3445_RPA3463_CDS;__3 | -0.08839 | -0.11022 | 0.13999 | 0.05419 |
| 3446_RPA3464_CDS;__3 | 0.01913 | -0.14829 | 0.12412 | -0.02965 |
| 3447_RPA3465_CDS;__3 | -0.14150 | 0.03271 | 0.09130 | -0.08642 |
| 3448_RPA3466_CDS;__3 | -0.19535 | 0.08850 | -0.12897 | -0.04409 |
| 3449_RPA3467_CDS;__3 | -0.12785 | 0.06489 | -0.01379 | 0.01827 |
| 3450_RPA3468_CDS;__3 | -0.20927 | 0.00187 | 0.06641 | -0.01358 |
| 3451_RPA3469_CDS;__3 | -0.10257 | -0.05455 | 0.14355 | 0.11591 |
| 3452_RPA3470_CDS;__3 | -0.18353 | -0.06679 | -0.02948 | 0.06251 |
| 3453_RPA3471_CDS;__3 | -0.10061 | 0.04802 | 0.05961 | -0.04429 |
| 3454_RPA3472_ilvD;__ | -0.22070 | 0.05196 | 0.00507 | 0.03889 |
| 3455_RPA3473_ucpA;__ | -0.11833 | 0.08047 | -0.10111 | -0.00699 |
| 3456_RPA3474_fabG;__ | -0.28799 | 0.00145 | 0.03708 | 0.01133 |
| 3457_RPA3475_CDS;__3 | 0.13874 | 0.11885 | 0.02975 | -0.16565 |
| 3458_RPA3476_CDS;__3 | -0.20917 | -0.00699 | -0.05124 | -0.06773 |
| 3459_RPA3477_exbD;__ | -0.25317 | 0.00262 | -0.07989 | 0.03544 |
| 3460_RPA3478_exbB;__ | -0.24331 | -0.00573 | -0.09441 | -0.08639 |
| 3461_RPA3479_CDS;__3 | 0.11741 | -0.45072 | -0.19215 | 0.03611 |
| 3462_RPA3480_fiu;__3 | -0.22688 | -0.01669 | -0.10517 | -0.07252 |
| 3463_RPA3481_CDS;__3 | -0.00548 | 0.03619 | 0.21967 | 0.08557 |
| 3464_RPA3482_CDS;__3 | -0.10352 | 0.10383 | -0.01278 | -0.00580 |
| 3465_RPA3483_CDS;__3 | -0.23065 | 0.03944 | 0.04488 | -0.00809 |
| 3466_RPA3484_CDS;__3 | 0.60500 | -0.06615 | -0.21615 | 0.13617 |
| 3467_RPA3485_CDS;__3 | -0.14450 | -0.10130 | -0.03436 | 0.08692 |
| 3468_RPA3486_CDS;__3 | -0.07583 | 0.05425 | 0.05783 | -0.03225 |
| 3469_RPA3487_CDS;__3 | -0.16138 | 0.01931 | 0.15506 | -0.11931 |
| 3470_RPA3488_CDS;__3 | -0.21311 | 0.09061 | -0.04125 | -0.02845 |
| 3471_RPA3489_CDS;__3 | 0.24935 | 0.09253 | 0.01680 | -0.27691 |
| 3472_RPA3490_hflC;__ | -0.15229 | -0.04939 | 0.03770 | -0.10451 |
| 3473_RPA3491_hflK;__ | -0.15498 | 0.00321 | -0.06114 | -0.00304 |
| 3474_RPA3492_dyr;__3 | 0.03201 | 0.03249 | 0.09948 | 0.06217 |
| 3475_RPA3493_thyA;__ | -0.11195 | -0.16100 | -0.03137 | -0.01968 |
| 3476_RPA3494_CDS;__3 | 0.05311 | 0.07943 | 0.01924 | -0.02072 |
| 3477_RPA3495_CDS;__3 | -0.11602 | -0.06329 | -0.12809 | -0.00201 |
| 3478_RPA3496_CDS;__3 | 0.06314 | -0.01702 | 0.36078 | -0.05805 |
| 3479_RPA3497_CDS;__3 | 0.09389 | -0.57412 | 0.10107 | -0.17999 |
| 3480_RPA3498_CDS;__3 | -0.03704 | 0.01448 | 0.14660 | 0.06891 |
| 3481_RPA3499_CDS;__3 | -0.18259 | 0.01721 | -0.08894 | 0.06524 |

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| 3482_RPA3500_fumC;__ | -0.10346 | 0.08238 | -0.03638 | -0.05260 |
| 3483_RPA3501_CDS;__3 | 0.01980 | 0.01468 | -0.00869 | -0.08902 |
| 3484_RPA3502_CDS;__3 | 0.05979 | -0.02909 | 0.10008 | -0.01030 |
| 3485_RPA3503_CDS;__3 | -0.20416 | -0.06501 | -0.00184 | 0.03787 |
| 3486_RPA3504_CDS;__3 | 0.00042 | 0.00193 | -0.11205 | -0.08077 |
| 3487_RPA3505_CDS;__3 | 0.37648 | -0.05941 | 0.24575 | -0.55272 |
| 3488_RPA3506_uvrD;__ | -0.21553 | 0.06863 | -0.00094 | 0.01964 |
| 3489_RPA3507_CDS;__3 | 0.08999 | -0.02517 | 0.12585 | -0.25613 |
| 3490_RPA3508_CDS;__3 | -0.29097 | 0.05575 | 0.05686 | 0.06161 |
| 3491_RPA3509_CDS;__3 | -0.21329 | 0.00207 | 0.18057 | 0.10370 |
| 3492_RPA3510_CDS;__3 | -0.08160 | 0.08896 | -0.05004 | -0.02897 |
| 3493_RPA3511_CDS;__3 | -0.12946 | 0.09979 | -0.11680 | -0.12169 |
| 3494_RPA3512_CDS;__3 | -0.18874 | 0.00763 | 0.12907 | 0.08018 |
| 3495_RPA3513_CDS;__3 | -0.03810 | -0.02357 | 0.05275 | 0.04805 |
| 3496_RPA3514_CDS;__3 | -0.21327 | 0.01454 | 0.15777 | 0.01819 |
| 3497_RPA3515_CDS;__3 | -0.19908 | 0.07483 | 0.02064 | 0.06258 |
| 3498_RPA3516_CDS;__3 | -0.13587 | -0.04271 | 0.09872 | 0.06050 |
| 3499_RPA3517_ligA;__ | -0.23534 | 0.02101 | 0.05382 | 0.02679 |
| 3500_RPA3518_CDS;__3 | 0.04335 | -0.06782 | 0.19732 | 0.09473 |
| 3501_RPA3519_recN;__ | -0.23595 | -0.00312 | -0.11483 | -0.00769 |
| 3502_RPA3520_CDS;__3 | -0.07680 | 0.09678 | -0.05278 | 0.02184 |
| 3503_RPA3521_lpxC;__ | 0.00998 | 0.14965 | -0.14129 | -0.00837 |
| 3504_RPA3522_ftsZ;__ | -0.16722 | 0.09689 | -0.12441 | -0.07795 |
| 3505_RPA3523_ftsA;__ | -0.06825 | 0.06395 | 0.01391 | 0.00653 |
| 3506_RPA3524_ftsQ;__ | -0.12068 | -0.00815 | -0.07913 | -0.10837 |
| 3507_RPA3525_ddlA;__ | -0.18333 | 0.02762 | 0.05958 | -0.04678 |
| 3508_RPA3526_CDS;__3 | -0.00219 | -0.24830 | 0.09182 | 0.03566 |
| 3509_RPA3527_CDS;__3 | 0.11577 | -0.18625 | -0.04061 | 0.10634 |
| 3510_RPA3528_murB;__ | -0.05939 | -0.15093 | 0.06119 | -0.18126 |
| 3511_RPA3529_murC;__ | -0.21001 | 0.08626 | -0.02048 | 0.04581 |
| 3512_RPA3530_murG;__ | -0.08033 | 0.04739 | 0.09719 | 0.07659 |
| 3513_RPA3531_ftsW;__ | -0.18400 | 0.01887 | 0.07548 | -0.00775 |
| 3514_RPA3532_murD;__ | -0.20310 | 0.04055 | -0.00666 | -0.03246 |
| 3515_RPA3533_mraY;__ | -0.21284 | -0.21944 | -0.15285 | -0.04543 |
| 3516_RPA3534_murF;__ | -0.07762 | -0.05335 | 0.01090 | 0.04756 |
| 3517_RPA3535_murE;__ | 0.00405 | -0.49372 | -0.03524 | -0.04914 |
| 3518_RPA3536_CDS;__4 | -0.21855 | -0.02206 | -0.07649 | -0.00210 |
| 3519_RPA3537_CDS;__4 | -0.22942 | -0.07594 | 0.08158 | 0.00519 |
| 3520_RPA3538_CDS;__4 | -0.07321 | 0.02608 | 0.17454 | 0.09163 |
| 3521_RPA3539_CDS;__4 | -0.18841 | 0.07582 | -0.02793 | 0.08173 |
| 3522_RPA3540_CDS;__4 | 0.49417 | 0.14385 | -0.08545 | -0.20291 |
| 3523_RPA3541_CDS;__4 | 0.61375 | 0.18390 | -0.37635 | -0.11114 |
| 3524_RPA3542_emrB;__ | -0.21231 | 0.05483 | 0.00217 | 0.03669 |
| 3525_RPA3543_CDS;__4 | -0.21353 | 0.00089 | -0.03853 | 0.06076 |
| 3526_RPA3544_CDS;__4 | -0.02215 | -0.08559 | 0.08589 | 0.10413 |
| 3527_RPA3545_CDS;__4 | 0.04635 | -0.08561 | -0.17396 | -0.02433 |
| 3528_RPA3546_CDS;__4 | -0.04679 | -0.49044 | -0.10211 | 0.02523 |
| 3529_RPA3547_CDS;__4 | 1.13715 | 0.06392 | 0.45269 | -1.70618 |
| 3530_RPA3548_CDS;__4 | 0.03918 | 0.00081 | 0.06658 | -0.01955 |
| 3531_RPA3549_CDS;__4 | -0.16307 | 0.01735 | 0.13357 | 0.07238 |
| 3532_RPA3550_CDS;__4 | -0.17665 | 0.06846 | 0.08307 | 0.03286 |
| 3533_RPA3551_CDS;__4 | -0.12250 | 0.02818 | 0.20307 | -0.18916 |
| 3534_RPA3552_CDS;__4 | -0.11038 | -0.49473 | -0.06904 | 0.04322 |
| 3535_RPA3553_CDS;__4 | -0.08746 | 0.01408 | 0.16380 | 0.10754 |
| 3536_RPA3554_arsC;__ | -0.05038 | -0.00479 | 0.33677 | -0.18809 |
| 3537_RPA3555_arsC;__ | -0.21489 | 0.05168 | 0.06651 | 0.02300 |
| 3538_RPA3556_CDS;__4 | -0.03737 | -0.17086 | 0.05371 | -0.16805 |

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| 3539_RPA3557_CDS;__4 | -0.24304 | -0.00574 | 0.16102 | 0.02042 |
| 3540_RPA3558_CDS;__4 | -0.13440 | -0.01122 | 0.17989 | -0.02768 |
| 3541_RPA3559_arsR;__ | 0.17470 | -0.28975 | -0.17440 | -0.04665 |
| 3542_RPA3560_CDS;__4 | 0.14666 | 0.02432 | 0.07503 | 0.06434 |
| 3543_RPA3561_CDS;__4 | -0.17901 | 0.13464 | -0.06653 | 0.18285 |
| 3544_RPA3562_CDS;__4 | -0.24176 | -0.02552 | -0.03221 | -0.00746 |
| 3545_RPA3563_CDS;__4 | 0.56394 | 0.06999 | -0.38838 | -0.10110 |
| 3546_RPA3564_CDS;__4 | -0.26431 | -0.09410 | 0.00621 | -0.00619 |
| 3547_RPA3565_CDS;__4 | -0.10999 | 0.14624 | -0.23713 | -0.04434 |
| 3548_RPA3566_CDS;__4 | -0.00076 | -0.05591 | 0.12197 | 0.13092 |
| 3549_RPA3567_CDS;__4 | -0.21993 | 0.03056 | 0.06336 | 0.05363 |
| 3550_RPA3568_CDS;__4 | -0.17415 | 0.05651 | -0.33313 | -0.17403 |
| 3551_RPA3569_CDS;__4 | -0.09050 | 0.02048 | -0.09627 | -0.00922 |
| 3552_RPA3570_CDS;__4 | -0.18593 | 0.01408 | 0.18410 | 0.04198 |
| 3553_RPA3571_CDS;__4 | -0.15147 | -0.07597 | 0.18786 | -0.01108 |
| 3554_RPA3572_CDS;__4 | -0.01886 | -0.19713 | 0.05426 | 0.02113 |
| 3555_RPA3573_thiO;__ | -0.29614 | 0.02254 | 0.06863 | 0.01202 |
| 3556_RPA3574_thiG;__ | -0.09333 | 0.12715 | 0.00495 | 0.17401 |
| 3557_RPA3575_thiG;__ | -0.14400 | 0.04813 | 0.07257 | 0.00888 |
| 3558_RPA3576_thiE;__ | -0.20769 | -0.02736 | 0.01178 | -0.03116 |
| 3559_RPA3577_thiC;__ | -0.23674 | 0.08735 | -0.04799 | 0.03821 |
| 3560_RPA3578_CDS;__4 | 1.08951 | 0.37214 | -0.29046 | 0.26266 |
| 3561_RPA3579_CDS;__4 | 0.16928 | 0.06371 | 0.11278 | 0.07407 |
| 3562_RPA3580_CDS;__4 | 0.21291 | 0.04171 | 0.05903 | 0.13220 |
| 3563_RPA3581_CDS;__4 | 0.20749 | -0.04976 | 0.56994 | -1.24602 |
| 3564_RPA3582_CDS;__4 | 0.20074 | 0.06650 | 0.11532 | -0.03601 |
| 3565_RPA3583_CDS;__4 | 0.25459 | 0.02286 | -0.00251 | -0.00947 |
| 3566_RPA3584_CDS;__4 | 0.16885 | -0.10035 | -0.00850 | 0.17153 |
| 3567_RPA3585_CDS;__4 | -0.01978 | -0.01870 | 0.03859 | -0.04013 |
| 3568_RPA3586_CDS;__4 | 0.05315 | -0.00208 | 0.22833 | 0.11232 |
| 3569_RPA3587_CDS;__4 | -0.02747 | -0.22532 | 0.03078 | 0.10603 |
| 3570_RPA3588_CDS;__4 | -0.13684 | 0.08464 | -0.03266 | 0.06836 |
| 3571_RPA3589_CDS;__4 | -0.00321 | 0.02637 | 0.19637 | -0.20951 |
| 3572_RPA3590_CDS;__4 | -0.09230 | -0.02714 | -0.00166 | 0.05726 |
| 3573_RPA3591_CDS;__4 | -0.35925 | 0.08301 | -0.09668 | 0.08883 |
| 3574_RPA3592_CDS;__4 | -0.13753 | 0.03955 | 0.10661 | 0.00624 |
| 3575_RPA3593_CDS;__4 | -0.06708 | 0.06753 | -0.23973 | -0.01806 |
| 3576_RPA3594_CDS;__4 | -0.03103 | 0.03273 | -0.00436 | -0.04709 |
| 3577_RPA3595_CDS;__4 | -0.06531 | -0.01368 | 0.06516 | 0.12822 |
| 3578_RPA3596_CDS;__4 | -0.02533 | -0.01135 | 0.00159 | -0.06620 |
| 3579_RPA3597_CDS;__4 | -0.04820 | 0.04298 | 0.10260 | -0.03284 |
| 3580_RPA3598_CDS;__4 | -0.06267 | 0.02801 | -0.08913 | -0.06605 |
| 3581_RPA3599_CDS;__4 | 0.15231 | 0.03810 | 0.22367 | 0.06907 |
| 3582_RPA3600_bfr;__4 | -0.29356 | 0.06392 | 0.00502 | 0.02312 |
| 3583_RPA3601_CDS;__4 | -0.00984 | 0.12823 | -0.00108 | 0.17078 |
| 3584_RPA3602_CDS;__4 | -0.12933 | 0.07119 | -0.08711 | -0.04083 |
| 3585_RPA3603_CDS;__4 | 0.43460 | -0.19263 | -0.08093 | -0.11724 |
| 3586_RPA3604_CDS;__4 | -0.19656 | -0.07016 | 0.12097 | 0.06799 |
| 3587_RPA3605_CDS;__4 | -0.05707 | 0.02104 | 0.19842 | 0.14908 |
| 3588_RPA3606_CDS;__4 | 0.65439 | -0.38144 | -0.16897 | -0.11728 |
| 3589_RPA3607_CDS;__4 | 0.35214 | 0.07503 | 0.02530 | 0.20003 |
| 3590_RPA3608_CDS;__4 | 0.39848 | 0.09747 | -0.06861 | 0.10321 |
| 3591_RPA3609_CDS;__4 | -0.27549 | 0.07418 | -0.09496 | -0.02540 |
| 3592_RPA3610_CDS;__4 | -0.13594 | -0.06214 | 0.28423 | 0.08787 |
| 3593_RPA3611_CDS;__4 | -0.18144 | 0.06712 | -0.10562 | -0.05887 |
| 3594_RPA3612_CDS;__4 | 0.21524 | 0.03711 | -0.02881 | 0.09099 |
| 3595_RPA3613_CDS;__4 | -0.05494 | 0.03733 | 0.10924 | -0.03539 |

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| 3596_RPA3614_CDS;__4 | -0.13679 | 0.07783 | -0.07824 | 0.01541 |
| 3597_RPA3615_CDS;__4 | -0.20915 | 0.03977 | 0.04087 | 0.03105 |
| 3598_RPA3616_CDS;__4 | 0.06978 | -0.04496 | 0.06459 | -0.06399 |
| 3599_RPA3617_CDS;__4 | 0.18291 | 0.25357 | -0.36391 | 0.47581 |
| 3600_RPA3618_CDS;__4 | -0.23450 | 0.08105 | -0.00009 | 0.08804 |
| 3601_RPA3619_vanA;__ | -0.21003 | -0.01756 | -0.05339 | 0.00581 |
| 3602_RPA3620_vanR;__ | -0.12103 | 0.03585 | 0.07156 | 0.11443 |
| 3603_RPA3621_vanB;__ | -0.05098 | 0.07485 | 0.05888 | -0.01355 |
| 3604_RPA3622_CDS;__4 | -0.17565 | -0.29191 | -0.00389 | 0.01299 |
| 3605_RPA3623_CDS;__4 | 0.07648 | -0.16304 | -0.10543 | 0.14587 |
| 3606_RPA3624_CDS;__4 | -0.19108 | 0.05092 | -0.02700 | -0.00322 |
| 3607_RPA3625_CDS;__4 | 0.02531 | 0.04879 | -0.07084 | -0.07293 |
| 3608_RPA3626_CDS;__4 | -0.14593 | 0.12696 | -0.12739 | -0.02320 |
| 3609_RPA3627_CDS;__4 | -0.06893 | -0.19070 | 0.07236 | 0.04191 |
| 3610_RPA3628_CDS;__4 | -0.14233 | -0.04745 | -0.00816 | 0.02907 |
| 3611_RPA3629_CDS;__4 | -0.04609 | -0.06732 | 0.28725 | -0.23992 |
| 3612_RPA3630_CDS;__4 | -0.01455 | 0.10041 | -0.01382 | 0.09569 |
| 3613_RPA3631_CDS;__4 | -0.07743 | 0.01448 | -0.02549 | 0.07917 |
| 3614_RPA3632_CDS;__4 | -0.05836 | 0.05375 | 0.11646 | 0.09880 |
| 3615_RPA3633_CDS;__4 | 0.00814 | 0.00179 | -0.00713 | 0.00374 |
| 3616_RPA3634_tal;__4 | -0.14531 | 0.07695 | 0.00228 | 0.06346 |
| 3617_RPA3635_gnd;__4 | -0.11129 | 0.08583 | 0.01788 | 0.10145 |
| 3618_RPA3636_zwf;__ | -0.18419 | 0.06504 | 0.04934 | 0.07192 |
| 3619_RPA3637_pgl;__4 | 0.02405 | 0.06961 | 0.11203 | 0.12209 |
| 3620_RPA3638_CDS;__4 | -0.07465 | 0.07232 | 0.03779 | 0.08488 |
| 3621_RPA3639_cof;__4 | -0.13670 | 0.07997 | 0.05769 | -0.03745 |
| 3622_RPA3640_CDS;__4 | -0.19104 | -0.03881 | 0.10124 | -0.00704 |
| 3623_RPA3641_malQ;__ | -0.03353 | -0.14944 | 0.06385 | 0.07493 |
| 3624_RPA3642_CDS;__4 | 0.10792 | -0.10570 | -0.04194 | -0.06870 |
| 3625_RPA3643_CDS;__4 | -0.11974 | -0.07403 | -0.00516 | 0.06593 |
| 3626_RPA3644_glgB;__ | -0.07084 | -0.20554 | -0.07172 | 0.04693 |
| 3627_RPA3645_glgX;__ | -0.12542 | 0.08687 | -0.02391 | 0.04721 |
| 3628_RPA3646_CDS;__4 | -0.06171 | 0.05657 | 0.07595 | -0.03768 |
| 3629_RPA3647_CDS;__4 | -0.06885 | -0.00210 | 0.01188 | 0.03914 |
| 3630_RPA3648_CDS;__4 | 0.66564 | 0.07353 | 0.02933 | 0.18448 |
| 3631_RPA3649_CDS;__4 | 0.49127 | 0.07808 | -0.33783 | 0.13563 |
| 3632_RPA3650_CDS;__4 | 0.03188 | -0.11187 | -0.02594 | -0.02191 |
| 3633_RPA3651_CDS;__4 | -0.22432 | 0.09766 | -0.01514 | 0.10156 |
| 3634_RPA3652_CDS;__4 | 0.20366 | 0.01290 | 0.10748 | 0.11262 |
| 3635_RPA3653_CDS;__4 | -0.01147 | -0.12170 | 0.03351 | -0.38517 |
| 3636_RPA3654_CDS;__4 | -0.00118 | 0.11494 | 0.05146 | -0.33790 |
| 3637_RPA3655_CDS;__4 | -0.12108 | -0.01633 | 0.12144 | 0.06885 |
| 3638_RPA3656_CDS;__4 | 0.04356 | -0.06950 | 0.05462 | -0.12323 |
| 3639_RPA3657_fadD;__ | -0.20068 | 0.03907 | 0.05494 | 0.01730 |
| 3640_RPA3658_ureF;__ | -0.09545 | 0.07295 | 0.06166 | 0.10667 |
| 3641_RPA3659_CDS;__4 | 0.00209 | 0.16331 | -0.00312 | 0.11476 |
| 3642_RPA3660_ureC;__ | -0.17475 | -0.01872 | -0.03267 | -0.10277 |
| 3643_RPA3661_CDS;__4 | -0.15780 | 0.02658 | 0.11363 | 0.04442 |
| 3644_RPA3662_ureB;__ | -0.09185 | -0.04177 | 0.05214 | 0.04813 |
| 3645_RPA3663_ureA;__ | -0.18876 | 0.11233 | -0.07838 | 0.06951 |
| 3646_RPA3664_ureD;__ | 0.25811 | -0.16036 | 0.23880 | -0.18434 |
| 3647_RPA3665_CDS;__4 | -0.14019 | 0.00827 | 0.09888 | 0.01306 |
| 3648_RPA3666_CDS;__4 | -0.19955 | 0.00885 | 0.19636 | -0.03045 |
| 3649_RPA3667_CDS;__4 | -0.11525 | -0.09568 | -0.05394 | -0.04903 |
| 3650_RPA3668_CDS;__4 | -0.16131 | 0.04646 | 0.01329 | -0.00893 |
| 3651_RPA3669_CDS;__4 | -0.29163 | 0.08202 | -0.13818 | -0.02038 |
| 3652_RPA3670_CDS;__4 | -0.10969 | 0.10790 | -0.09670 | 0.04074 |

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| 3653_RPA3671_infA;__ | 0.24574 | -0.04027 | 0.28247 | -0.62411 |
| 3654_RPA3672_cspA;__ | 0.05050 | 0.09294 | -0.23200 | -0.08556 |
| 3655_RPA3673_CDS;__4 | 0.35571 | -0.18779 | 0.06020 | -0.29838 |
| 3656_RPA3674_CDS;__4 | 0.37095 | -0.14847 | -0.09227 | -0.17821 |
| 3657_RPA3675_CDS;__4 | -0.12170 | 0.15880 | -0.70332 | -0.39256 |
| 3658_RPA3676_CDS;__4 | 0.05437 | -0.18521 | -0.14437 | -0.01640 |
| 3659_RPA3677_CDS;__4 | 0.15510 | 0.12243 | -0.26605 | 0.03941 |
| 3660_RPA3678_CDS;__4 | -0.09342 | 0.11144 | -0.08401 | 0.03872 |
| 3661_RPA3679_CDS;__4 | 0.03761 | 0.09076 | -0.00228 | 0.02039 |
| 3662_RPA3680_CDS;__4 | 0.01074 | -0.02069 | 0.01438 | -0.11896 |
| 3663_RPA3681_CDS;__4 | 0.06943 | 0.02464 | -0.20207 | -0.01790 |
| 3664_RPA3682_CDS;__4 | 0.05424 | 0.06673 | -0.05674 | -0.06019 |
| 3665_RPA3683_CDS;__4 | -0.02858 | -0.09531 | -0.07285 | -0.00551 |
| 3666_RPA3684_CDS;__4 | 0.05662 | -0.17021 | -0.17965 | -0.12637 |
| 3667_RPA3685_CDS;__4 | -0.09465 | -0.12138 | 0.02794 | 0.00561 |
| 3668_RPA3686_CDS;__4 | 0.05888 | 0.06570 | 0.18919 | -0.04127 |
| 3669_RPA3687_CDS;__4 | 0.14305 | -0.49236 | -0.08035 | -0.10295 |
| 3670_RPA3688_CDS;__4 | -0.02072 | 0.05732 | 0.02772 | -0.03645 |
| 3671_RPA3689_CDS;__4 | -0.02483 | -0.20511 | -0.06906 | -0.06659 |
| 3672_RPA3690_CDS;__4 | -0.08291 | 0.08385 | 0.00073 | 0.09073 |
| 3673_RPA3691_CDS;__4 | 0.00126 | 0.08131 | -0.03000 | -0.06907 |
| 3674_RPA3692_CDS;__4 | -0.05937 | -0.00805 | -0.04938 | 0.00305 |
| 3675_RPA3693_CDS;__4 | 0.01748 | 0.12833 | -0.07887 | 0.09269 |
| 3676_RPA3694_kdsB;__ | 0.05098 | 0.03289 | -0.08642 | 0.10141 |
| 3677_RPA3695_CDS;__4 | -0.19023 | 0.08818 | -0.02994 | 0.03604 |
| 3678_RPA3696_CDS;__4 | 0.21852 | 0.02366 | -0.00618 | 0.05873 |
| 3679_RPA3697_emrA;__ | 0.16171 | -0.16119 | -0.00396 | -0.00546 |
| 3680_RPA3698_emrB;__ | 0.10749 | -0.01949 | -0.01402 | 0.08393 |
| 3681_RPA3699_CDS;__4 | 0.28444 | -0.35855 | -0.24551 | 0.17543 |
| 3682_RPA3700_CDS;__4 | 0.10049 | 0.00879 | 0.01041 | -0.39068 |
| 3683_RPA3701_metF;__ | -0.18740 | -0.21638 | 0.02783 | 0.07519 |
| 3684_RPA3702_metH;__ | -0.22510 | -0.02002 | -0.08572 | -0.02900 |
| 3685_RPA3703_CDS;__4 | 0.64904 | 0.08172 | 0.24699 | 0.14563 |
| 3686_RPA3704_CDS;__4 | 0.29627 | 0.08517 | 0.15177 | -0.18952 |
| 3687_RPA3705_glpK;__ | -0.15948 | -0.00961 | -0.06544 | -0.00582 |
| 3688_RPA3706_nasT;__ | -0.21675 | 0.03455 | 0.10190 | 0.05882 |
| 3689_RPA3707_CDS;__4 | -0.13491 | 0.00606 | 0.22331 | 0.01247 |
| 3690_RPA3708_CDS;__4 | -0.16529 | -0.07065 | 0.20209 | -0.12027 |
| 3691_RPA3709_CDS;__4 | -0.19025 | -0.14187 | 0.35876 | 0.08086 |
| 3692_RPA3710_nirA;__ | -0.05569 | -0.01223 | 0.00089 | 0.06618 |
| 3693_RPA3711_CDS;__4 | -0.12470 | -0.03223 | 0.05454 | 0.05958 |
| 3694_RPA3713_pimD;__ | -0.27266 | 0.10996 | -0.14779 | -0.01302 |
| 3695_RPA3714_pimC;__ | -0.28154 | 0.08509 | -0.09780 | 0.01777 |
| 3696_RPA3715_pimB;__ | -0.28313 | 0.08818 | -0.13540 | -0.03345 |
| 3697_RPA3716_pimA;__ | -0.12131 | 0.05269 | 0.04557 | -0.00071 |
| 3698_RPA3717_pimF;__ | -0.24871 | 0.09532 | -0.14924 | -0.15344 |
| 3699_RPA3718_CDS;__4 | 0.33782 | -0.12433 | -0.05037 | 0.09164 |
| 3700_RPA3719_livG;__ | -0.07991 | 0.11183 | -0.10690 | -0.00357 |
| 3701_RPA3720_livF;__ | -0.17822 | 0.09245 | -0.06899 | 0.04743 |
| 3702_RPA3721_CDS;__4 | -0.00635 | -0.49194 | -0.09045 | 0.01716 |
| 3703_RPA3722_livM;__ | -0.23702 | -0.12520 | -0.00395 | 0.04486 |
| 3704_RPA3723_CDS;__4 | -0.05498 | -0.24829 | 0.08060 | 0.10603 |
| 3705_RPA3724_livK;__ | -0.17221 | 0.08555 | -0.06282 | 0.00965 |
| 3706_RPA3725_livJ;__ | -0.06569 | 0.15852 | -0.11526 | 0.03838 |
| 3707_RPA3726_CDS;__4 | -0.08707 | 0.18490 | -0.31614 | -0.03197 |
| 3708_RPA3727_CDS;__4 | -0.01907 | -0.22683 | 0.06826 | 0.01912 |
| 3709_RPA3728_CDS;__4 | -0.16471 | 0.06743 | 0.07276 | 0.11162 |

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| 3710_RPA3729_CDS;__4 | -0.18332 | 0.04561 | 0.07822 | 0.07385 |
| 3711_RPA3730_CDS;__4 | -0.18350 | -0.05470 | -0.01176 | 0.07403 |
| 3712_RPA3731_CDS;__4 | 0.04353 | 0.05248 | 0.19410 | 0.00144 |
| 3713_RPA3732_argD;_ | -0.22294 | 0.07128 | -0.04790 | -0.07790 |
| 3714_RPA3733_CDS;__4 | -0.12966 | 0.06864 | -0.00688 | 0.01187 |
| 3715_RPA3734_lytB;_ | -0.12058 | 0.05083 | 0.05634 | -0.07698 |
| 3716_RPA3735_CDS;__4 | -0.27055 | 0.01167 | -0.06888 | 0.01750 |
| 3717_RPA3736_pstS;_ | 0.14837 | -0.02466 | 0.07477 | -0.04020 |
| 3718_RPA3737_CDS;__4 | 0.04734 | -0.04382 | -0.00592 | -0.01773 |
| 3719_RPA3738_CDS;__4 | 0.14950 | -0.15982 | 0.22052 | 0.02101 |
| 3720_RPA3739_CDS;__4 | 0.03657 | -0.19472 | -0.09057 | -0.05423 |
| 3721_RPA3740_sqhC;_ | -0.08969 | 0.05034 | 0.06758 | -0.04287 |
| 3722_RPA3741_CDS;__4 | -0.04160 | -0.02589 | -0.06537 | 0.06451 |
| 3723_RPA3742_CDS;__4 | -0.08709 | 0.04754 | 0.03701 | -0.15682 |
| 3724_RPA3743_CDS;__4 | -0.10757 | 0.04071 | 0.06437 | -0.08693 |
| 3725_RPA3744_CDS;__4 | -0.12126 | 0.13098 | -0.14183 | 0.00114 |
| 3726_RPA3745_CDS;__4 | -0.14556 | 0.08126 | -0.02392 | 0.04133 |
| 3727_RPA3746_CDS;__4 | -0.15583 | 0.03901 | 0.07385 | 0.02530 |
| 3728_RPA3747_eutC;_ | -0.00151 | 0.04209 | 0.10297 | -0.06448 |
| 3729_RPA3748_CDS;__4 | -0.08277 | -0.00144 | 0.04333 | -0.02016 |
| 3730_RPA3749_eutB;_ | -0.08513 | 0.03148 | 0.10187 | -0.00892 |
| 3731_RPA3750_CDS;__4 | -0.06002 | -0.01213 | -0.04032 | -0.02120 |
| 3732_RPA3751_CDS;__4 | -0.18183 | 0.00684 | 0.24037 | 0.03805 |
| 3733_RPA3752_CDS;__4 | -0.09237 | 0.05023 | 0.09297 | -0.04164 |
| 3734_RPA3753_CDS;__4 | -0.14113 | 0.03545 | 0.08698 | -0.02212 |
| 3735_RPA3754_CDS;__4 | -0.08423 | 0.02501 | 0.12206 | -0.02578 |
| 3736_RPA3755_hpcH;_ | -0.21323 | 0.03932 | 0.07231 | -0.06773 |
| 3737_RPA3756_CDS;__4 | -0.05571 | 0.09104 | -0.06850 | 0.01994 |
| 3738_RPA3757_CDS;__4 | 0.01110 | -0.01396 | 0.00747 | -0.02177 |
| 3739_RPA3758_hpcG;_ | -0.05724 | -0.24312 | 0.05179 | -0.19412 |
| 3740_RPA3759_hpcD;_ | -0.19018 | 0.04885 | 0.02045 | 0.03008 |
| 3741_RPA3760_hpcC;_ | -0.14085 | 0.05487 | 0.02220 | 0.06311 |
| 3742_RPA3761_CDS;__4 | -0.10167 | 0.07308 | 0.04671 | 0.05833 |
| 3743_RPA3762_CDS;__4 | -0.12266 | -0.33118 | -0.00149 | 0.10110 |
| 3744_RPA3763_ilvB;_ | -0.15988 | 0.05251 | 0.10013 | 0.11741 |
| 3745_RPA3764_CDS;__4 | -0.04412 | -0.03352 | 0.10059 | 0.01875 |
| 3746_RPA3765_paaD;_ | -0.17567 | -0.03987 | -0.10953 | 0.03660 |
| 3747_RPA3766_paaC;_ | 0.00263 | 0.05003 | 0.09031 | 0.02919 |
| 3748_RPA3767_paaB;_ | -0.31919 | -0.04294 | 0.00611 | 0.02512 |
| 3749_RPA3768_paaA;_ | -0.14250 | -0.02278 | -0.00845 | 0.10300 |
| 3750_RPA3769_CDS;__4 | -0.17511 | 0.01570 | 0.10238 | 0.05052 |
| 3751_RPA3770_CDS;__4 | -0.15784 | 0.04254 | -0.29220 | -0.28508 |
| 3752_RPA3771_CDS;__4 | -0.00074 | -0.08107 | 0.20983 | 0.15757 |
| 3753_RPA3772_CDS;__4 | -0.19043 | -0.05519 | 0.13876 | -0.14061 |
| 3754_RPA3773_CDS;__4 | 0.14593 | 0.08449 | 0.12443 | 0.20628 |
| 3755_RPA3774_CDS;__4 | -0.05149 | -0.14335 | 0.00962 | 0.05832 |
| 3756_RPA3775_CDS;__4 | -0.23389 | 0.04411 | 0.03539 | -0.01039 |
| 3757_RPA3776_CDS;__4 | -0.15799 | -0.03513 | -0.01762 | 0.01664 |
| 3758_RPA3777_CDS;__4 | 0.06195 | -0.11259 | 0.13500 | -0.14098 |
| 3759_RPA3778_CDS;__4 | -0.13253 | 0.02431 | 0.08939 | 0.02617 |
| 3760_RPA3779_CDS;__4 | -0.14656 | 0.06392 | 0.05445 | -0.02317 |
| 3761_RPA3780_CDS;__4 | -0.04608 | 0.03748 | 0.09916 | 0.08179 |
| 3762_RPA3781_yihV;_ | -0.19717 | -0.01121 | -0.04478 | 0.02604 |
| 3763_RPA3782_CDS;__4 | -0.12822 | 0.04854 | 0.07379 | -0.00350 |
| 3764_RPA3783_CDS;__4 | -0.03598 | 0.02292 | 0.09154 | 0.00266 |
| 3765_RPA3784_CDS;__4 | -0.15491 | 0.08278 | 0.00371 | 0.04002 |
| 3766_RPA3785_CDS;__4 | 0.09664 | -0.00776 | 0.06720 | -0.22147 |

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| 3767_RPA3786_CDS;__4 | -0.05018 | 0.07489 | -0.23488 | -0.01371 |
| 3768_RPA3787_CDS;__4 | 0.09487 | 0.09759 | 0.00776 | -0.11373 |
| 3769_RPA3788_CDS;__4 | -0.06381 | -0.49502 | -0.16383 | 0.04807 |
| 3770_RPA3789_CDS;__4 | -0.11207 | -0.05243 | -0.09543 | 0.03417 |
| 3771_RPA3790_CDS;__4 | -0.09606 | -0.10736 | 0.02442 | 0.01127 |
| 3772_RPA3791_CDS;__4 | 0.04363 | 0.00610 | -0.05825 | -0.08909 |
| 3773_RPA3792_CDS;__4 | 0.05562 | -0.14303 | -0.00645 | 0.07692 |
| 3774_RPA3793_CDS;__4 | 0.07329 | 0.06727 | 0.12338 | -0.38863 |
| 3775_RPA3794_CDS;__4 | 0.14155 | -0.09244 | -0.11054 | 0.00191 |
| 3776_RPA3795_0r7111; | 0.12304 | 0.09673 | 0.08087 | -0.08812 |
| 3777_RPA3796_CDS;__4 | 0.15277 | 0.06552 | 0.13921 | 0.10131 |
| 3778_RPA3797_CDS;__4 | -0.08423 | -0.25268 | -0.01237 | -0.00517 |
| 3779_RPA3798_CDS;__4 | -0.03537 | -0.50445 | -0.04064 | -0.04489 |
| 3780_RPA3799_CDS;__4 | -0.09226 | 0.05541 | 0.09683 | -0.17893 |
| 3781_RPA3800_CDS;__4 | -0.15659 | 0.06023 | 0.03809 | 0.02621 |
| 3782_RPA3801_CDS;__4 | -0.11383 | -0.20991 | -0.05647 | 0.09247 |
| 3783_RPA3802_CDS;__4 | -0.27027 | -0.01921 | -0.09739 | -0.03214 |
| 3784_RPA3803_CDS;__4 | -0.15601 | 0.04552 | 0.03318 | 0.10520 |
| 3785_RPA3804_CDS;__4 | -0.13648 | 0.05362 | 0.07190 | 0.10525 |
| 3786_RPA3805_CDS;__4 | 0.02679 | -0.01753 | 0.30332 | -0.06589 |
| 3787_RPA3806_CDS;__4 | -0.31503 | 0.02002 | 0.01559 | 0.00077 |
| 3788_RPA3807_CDS;__4 | -0.14427 | 0.06659 | -0.01994 | 0.04690 |
| 3789_RPA3808_CDS;__4 | -0.15689 | 0.07829 | 0.07520 | -0.01042 |
| 3790_RPA3809_CDS;__4 | -0.16772 | -0.02422 | 0.05361 | 0.06046 |
| 3791_RPA3810_CDS;__4 | -0.27914 | 0.08748 | -0.14612 | -0.01156 |
| 3792_RPA3811_CDS;__4 | 0.11237 | 0.03169 | 0.08629 | -0.78602 |
| 3793_RPA3812_CDS;__4 | -0.04283 | -0.17256 | -0.14954 | -0.08270 |
| 3794_RPA3813_CDS;__4 | -0.08023 | -0.03143 | 0.05121 | -0.00835 |
| 3795_RPA3814_CDS;__4 | -0.16094 | -0.05019 | 0.02833 | 0.02061 |
| 3796_RPA3815_cbbE,_r | -0.20329 | 0.07309 | -0.02442 | -0.07905 |
| 3797_RPA3816_CDS;__4 | 0.94896 | 0.07169 | -0.04097 | 0.08634 |
| 3798_RPA3817_purB;__ | -0.30192 | 0.05505 | -0.05210 | 0.01597 |
| 3799_RPA3818_purL;__ | -0.24386 | 0.03330 | -0.16383 | 0.08451 |
| 3800_RPA3819_CDS;__4 | 0.14170 | 0.09933 | -0.28694 | -0.03275 |
| 3801_RPA3820_CDS;__4 | -0.22076 | -0.05551 | 0.07485 | 0.00191 |
| 3802_RPA3821_purC;__ | -0.25423 | 0.07244 | -0.06658 | -0.01700 |
| 3803_RPA3822_CDS;__4 | -0.25161 | 0.09952 | -0.19574 | 0.22618 |
| 3804_RPA3823_CDS;__4 | 0.00198 | 0.08120 | 0.10173 | -0.06573 |
| 3805_RPA3824_CDS;__4 | 0.07349 | -0.03275 | 0.20634 | 0.14389 |
| 3806_RPA3825_CDS;__4 | -0.05737 | -0.06948 | 0.16123 | -0.01263 |
| 3807_RPA3826_CDS;__4 | 0.36608 | 0.14929 | 0.09190 | 0.13574 |
| 3808_RPA3827_CDS;__4 | -0.03421 | -0.05794 | 0.26243 | 0.07830 |
| 3809_RPA3828_CDS;__4 | 0.03613 | -0.10560 | 0.38853 | 0.10172 |
| 3810_RPA3829_CDS;__4 | 0.03616 | 0.01698 | -0.05318 | -0.14984 |
| 3811_RPA3830_CDS;__4 | 0.20712 | 0.08760 | 0.09279 | -0.02805 |
| 3812_RPA3831_CDS;__4 | 0.09933 | 0.14995 | 0.13410 | -0.35601 |
| 3813_RPA3832_CDS;__4 | 0.10275 | 0.05013 | -0.04524 | -0.00203 |
| 3814_RPA3833_rrm;__4 | -0.23109 | -0.19711 | -0.05509 | 0.12373 |
| 3815_RPA3834_idh;__4 | -0.30376 | -0.04981 | -0.18772 | -0.04370 |
| 3816_RPA3835_CDS;__4 | 0.67754 | 0.04669 | -0.10700 | -0.04196 |
| 3817_RPA3836_CDS;__4 | 0.21291 | 0.04171 | 0.05903 | 0.13220 |
| 3818_RPA3837_CDS;__4 | 0.16928 | 0.06371 | 0.11278 | 0.07407 |
| 3819_RPA3838_CDS;__4 | -0.05801 | 0.12963 | -0.03716 | 0.02934 |
| 3820_RPA3839_pchR;__ | 0.10341 | 0.06988 | 0.09159 | -0.04362 |
| 3821_RPA3840_CDS;__4 | 0.00484 | 0.08534 | 0.02502 | -0.09300 |
| 3822_RPA3841_CDS;__4 | -0.06599 | 0.03749 | 0.10145 | 0.04479 |
| 3823_RPA3842_CDS;__4 | 0.27480 | -0.19771 | 0.01369 | 0.14249 |

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| 3824_RPA3843_kefC;__ | -0.06624 | -0.03111 | 0.02027 | -0.07638 |
| 3825_RPA3844_kefB;__ | -0.06993 | -0.20450 | -0.04646 | 0.00993 |
| 3826_RPA3845_CDS;__4 | -0.00843 | 0.05516 | 0.08371 | 0.05997 |
| 3827_RPA3846_CDS;__4 | -0.00735 | -0.09306 | 0.03252 | 0.04776 |
| 3828_RPA3847_alaS;__ | -0.19572 | 0.08204 | -0.08217 | -0.03289 |
| 3829_RPA3848_gcvT2;__ | -0.06895 | -0.13666 | -0.05069 | 0.06933 |
| 3830_RPA3849_CDS;__4 | 0.14140 | 0.28035 | -0.31886 | 0.49895 |
| 3831_RPA3850_gcvP;__ | -0.16061 | 0.04462 | 0.07970 | -0.01220 |
| 3832_RPA3851_recA;__ | -0.15034 | -0.16037 | -0.19650 | 0.05189 |
| 3833_RPA3852_CDS;__4 | 0.61213 | 0.13631 | -0.08900 | 0.20978 |
| 3834_RPA3853_CDS;__4 | 0.38854 | 0.17968 | -0.10226 | 0.14920 |
| 3835_RPA3854_CDS;__4 | 0.58017 | 0.13244 | 0.17966 | -0.10105 |
| 3836_RPA3855_CDS;__4 | 0.26716 | 0.06794 | -0.05491 | 0.06703 |
| 3837_RPA3856_CDS;__4 | 0.46288 | 0.19520 | -0.05693 | 0.11628 |
| 3838_RPA3857_CDS;__4 | -0.01951 | 0.06403 | 0.09343 | -0.05332 |
| 3839_RPA3858_CDS;__4 | 0.06593 | 0.07505 | 0.17637 | 0.10725 |
| 3840_RPA3859_CDS;__4 | 0.43516 | -0.20266 | 0.25941 | -0.13232 |
| 3841_RPA3860_CDS;__4 | 0.15178 | -0.01928 | 0.09927 | 0.13356 |
| 3842_RPA3861_CDS;__4 | -0.04875 | 0.01269 | 0.03835 | 0.15741 |
| 3843_RPA3862_CDS;__4 | 0.99551 | 0.26566 | 0.18435 | -0.11731 |
| 3844_RPA3863_CDS;__4 | 0.08299 | 0.04238 | 0.14005 | -0.05219 |
| 3845_RPA3864_CDS;__4 | -0.15710 | -0.04204 | -0.01950 | -0.06936 |
| 3846_RPA3865_CDS;__4 | 0.04554 | 0.02244 | 0.21871 | 0.13576 |
| 3847_RPA3866_CDS;__4 | 0.09210 | 0.06016 | 0.12662 | 0.08302 |
| 3848_RPA3867_CDS;__4 | -0.09822 | 0.08711 | -0.02436 | 0.03850 |
| 3849_RPA3868_CDS;__4 | 0.06098 | -0.09535 | 0.14253 | -0.00956 |
| 3850_RPA3869_CDS;__4 | -0.05754 | 0.01668 | 0.13155 | -0.05692 |
| 3851_RPA3870_CDS;__4 | 0.16559 | 0.01287 | 0.08463 | -0.13001 |
| 3852_RPA3871_mes-4;__ | -0.19336 | 0.07979 | -0.04760 | 0.04810 |
| 3853_RPA3872_CDS;__4 | -0.06154 | 0.05824 | 0.12440 | 0.10719 |
| 3854_RPA3873_CDS;__4 | -0.05405 | -0.02698 | 0.10845 | 0.06152 |
| 3855_RPA3874_CDS;__4 | -0.00539 | -0.03463 | 0.10331 | -0.04196 |
| 3856_RPA3875_CDS;__4 | -0.26987 | -0.03044 | 0.06467 | 0.08487 |
| 3857_RPA3876_fumA;__ | -0.28193 | 0.04038 | -0.00611 | 0.01769 |
| 3858_RPA3877_CDS;__4 | 0.29673 | 0.10529 | 0.00657 | 0.11412 |
| 3859_RPA3878_CDS;__4 | 0.00240 | -0.20871 | -0.02871 | 0.02665 |
| 3860_RPA3879_CDS;__4 | -0.11571 | -0.06678 | 0.27297 | 0.12896 |
| 3861_RPA3880_CDS;__4 | -0.15774 | -0.03753 | 0.11303 | -0.15341 |
| 3862_RPA3881_CDS;__4 | -0.21680 | -0.01654 | -0.05799 | -0.11757 |
| 3863_RPA3882_cckA;__ | -0.12913 | 0.07064 | 0.00042 | -0.01342 |
| 3864_RPA3883_flhB;__ | -0.13277 | 0.06008 | 0.07695 | 0.03139 |
| 3865_RPA3884_fliR;__ | -0.19805 | -0.10737 | 0.14054 | 0.01644 |
| 3866_RPA3885_fliQ;__ | 0.02285 | -0.02478 | 0.00604 | 0.13133 |
| 3867_RPA3886_CDS;__4 | -0.13200 | -0.02992 | -0.00303 | 0.07073 |
| 3868_RPA3887_flgC;__ | -0.24521 | -0.00010 | -0.08721 | 0.03841 |
| 3869_RPA3888_CDS;__4 | 0.02244 | 0.03789 | -0.11486 | -0.14870 |
| 3870_RPA3889_CDS;__4 | 0.26058 | 0.02062 | 0.07734 | -0.13390 |
| 3871_RPA3890_fliP;__ | 0.08334 | 0.02186 | -0.02058 | 0.05718 |
| 3872_RPA3891_CDS;__4 | 0.03048 | 0.09312 | -0.01539 | -0.02206 |
| 3873_RPA3892_CDS;__4 | -0.02485 | -0.01409 | 0.07186 | -0.13826 |
| 3874_RPA3893_CDS;__4 | 0.45324 | -0.09904 | 0.02425 | 0.02629 |
| 3875_RPA3894_CDS;__4 | 0.45404 | -0.14293 | 0.03158 | 0.01405 |
| 3876_RPA3895_CDS;__4 | -0.06985 | -0.01161 | -0.09367 | -0.01411 |
| 3877_RPA3896_CDS;__4 | 0.00259 | 0.05938 | 0.10211 | 0.12159 |
| 3878_RPA3897_fliM;__ | -0.19014 | 0.07358 | -0.00854 | 0.04694 |
| 3879_RPA3898_fliL;__ | -0.15251 | -0.07642 | 0.07441 | -0.02998 |
| 3880_RPA3899_flgF;__ | -0.13580 | -0.01075 | -0.00484 | 0.07844 |

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| 3881_RPA3900_flgG;__ | -0.28119 | 0.05797 | -0.24562 | 0.01730 |
| 3882_RPA3901_CDS;__4 | -0.14455 | 0.01912 | -0.01151 | 0.08004 |
| 3883_RPA3902_flgH;__ | -0.25855 | 0.04765 | 0.03979 | 0.06117 |
| 3884_RPA3903_mexD;__ | 0.01342 | -0.51783 | -0.04413 | -0.03949 |
| 3885_RPA3904_mexC;__ | 0.07935 | 0.04467 | 0.17142 | -0.07540 |
| 3886_RPA3905_CDS;__4 | 0.27905 | -0.14771 | 0.19484 | -0.22489 |
| 3887_RPA3906_CDS;__4 | -0.00109 | 0.11831 | -0.11537 | -0.37841 |
| 3888_RPA3907_dksA;__ | 0.27423 | 0.17286 | -0.14467 | 0.09072 |
| 3889_RPA3908_CDS;__4 | 0.10188 | 0.04011 | -0.08074 | 0.05120 |
| 3890_RPA3909_flgI;__ | -0.15436 | 0.08477 | -0.02437 | 0.03856 |
| 3891_RPA3910_CDS;__4 | -0.14883 | 0.01085 | -0.11088 | 0.01842 |
| 3892_RPA3911_CDS;__4 | -0.13686 | -0.01363 | -0.02098 | 0.03199 |
| 3893_RPA3912_CDS;__4 | 0.23586 | 0.08260 | -0.13953 | -0.04957 |
| 3894_RPA3913_CDS;__4 | 0.28355 | 0.17329 | -0.19940 | -0.00308 |
| 3895_RPA3914_CDS;__4 | 0.35025 | 0.11020 | 0.13614 | -0.10567 |
| 3896_RPA3915_CDS;__4 | -0.18839 | -0.00389 | -0.13165 | -0.08443 |
| 3897_RPA3916_CDS;__4 | -0.06894 | 0.03372 | -0.06175 | 0.00755 |
| 3898_RPA3917_CDS;__4 | -0.09155 | 0.03320 | 0.12866 | 0.02364 |
| 3899_RPA3918_CDS;__4 | 0.01278 | 0.05318 | 0.05300 | -0.00609 |
| 3900_RPA3919_CDS;__4 | 0.14803 | -0.16826 | 0.21785 | -0.15564 |
| 3901_RPA3920_CDS;__4 | -0.07819 | -0.04600 | 0.07018 | -0.00817 |
| 3902_RPA3921_CDS;__4 | -0.04769 | 0.00599 | 0.01897 | 0.01897 |
| 3903_RPA3922_CDS;__4 | -0.13485 | 0.02320 | 0.12362 | -0.08863 |
| 3904_RPA3923_CDS;__4 | -0.01389 | 0.03951 | 0.05690 | 0.03597 |
| 3905_RPA3924_CDS;__4 | -0.13397 | -0.18414 | -0.15141 | -0.01418 |
| 3906_RPA3925_CDS;__4 | -0.09195 | -0.07901 | 0.09518 | -0.02478 |
| 3907_RPA3926_CDS;__4 | -0.17511 | 0.06860 | 0.00438 | -0.04805 |
| 3908_RPA3927_CDS;__4 | -0.00502 | 0.11179 | -0.09248 | -0.00252 |
| 3909_RPA3928_CDS;__4 | -0.00274 | 0.04998 | 0.12462 | -0.01881 |
| 3910_RPA3929_CDS;__4 | -0.20547 | 0.04731 | -0.25875 | -0.10021 |
| 3911_RPA3930_CDS;__4 | -0.10178 | 0.03526 | 0.07832 | -0.07201 |
| 3912_RPA3931_flgK;__ | 0.02328 | 0.03507 | 0.10635 | 0.01144 |
| 3913_RPA3932_CDS;__4 | -0.23444 | 0.03057 | -0.20108 | -0.07563 |
| 3914_RPA3933_CDS;__4 | -0.02701 | 0.08745 | 0.03016 | -0.02396 |
| 3915_RPA3934_CDS;__4 | -0.16373 | 0.08856 | -0.03946 | 0.08540 |
| 3916_RPA3935_CDS;__4 | -0.12048 | 0.09126 | -0.02449 | 0.09571 |
| 3917_RPA3936_CDS;__4 | -0.05444 | -0.10955 | 0.08134 | -0.02944 |
| 3918_RPA3937_CDS;__4 | -0.08764 | 0.09239 | 0.02910 | -0.25208 |
| 3919_RPA3938_CDS;__4 | -0.01025 | 0.03337 | 0.16031 | -0.05855 |
| 3920_RPA3939_CDS;__4 | -0.08892 | 0.08818 | 0.03802 | 0.07729 |
| 3921_RPA3940_CDS;__4 | -0.13031 | 0.07591 | 0.04669 | 0.00273 |
| 3922_RPA3941_CDS;__4 | 0.04687 | -0.01945 | 0.07243 | 0.13976 |
| 3923_RPA3942_CDS;__4 | 0.06081 | 0.09878 | -0.04931 | 0.01578 |
| 3924_RPA3943_CDS;__4 | -0.13467 | 0.03833 | 0.12016 | 0.08993 |
| 3925_RPA3944_CDS;__4 | -0.10324 | -0.10998 | -0.01098 | 0.08103 |
| 3926_RPA3945_CDS;__4 | -0.15626 | -0.03391 | -0.02706 | 0.05012 |
| 3927_RPA3946_CDS;__4 | 1.11756 | -0.09701 | -0.21234 | -0.03067 |
| 3928_RPA3947_CDS;__4 | 0.21270 | -0.20381 | 0.10287 | -0.08087 |
| 3929_RPA3948_CDS;__4 | 0.17218 | 0.05158 | 0.13799 | 0.00784 |
| 3930_RPA3949_wbpX;__ | 0.17396 | -0.04011 | 0.01878 | -0.10933 |
| 3931_RPA3950_CDS;__4 | 0.17972 | 0.05746 | -0.04037 | 0.02476 |
| 3932_RPA3951_gmd;__4 | 0.08215 | 0.07657 | 0.02399 | -0.05357 |
| 3933_RPA3952_CDS;__4 | 0.44257 | -0.21014 | -0.11212 | -0.04131 |
| 3934_RPA3953_CDS;__4 | 0.11589 | -0.08594 | 0.03494 | -0.00154 |
| 3935_RPA3954_CDS;__4 | -0.12654 | 0.08197 | -0.08512 | -0.01033 |
| 3936_RPA3955_CDS;__4 | 0.13387 | 0.08695 | 0.08305 | 0.11621 |
| 3937_RPA3956_CDS;__4 | -0.21099 | 0.08827 | -0.17884 | -0.05063 |

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| 3938_RPA3957_CDS;__4 | 0.15945 | 0.01378 | -0.00392 | 0.01667 |
| 3939_RPA3958_CDS;__4 | -0.21243 | -0.00344 | -0.04958 | -0.03361 |
| 3940_RPA3959_CDS;__4 | -0.06619 | 0.10208 | -0.05268 | 0.05792 |
| 3941_RPA3960_CDS;__4 | 0.21430 | 0.15684 | -0.08382 | 0.18024 |
| 3942_RPA3961_CDS;__4 | -0.15209 | 0.01771 | -0.11032 | -0.02047 |
| 3943_RPA3962_CDS;__4 | -0.05786 | 0.07084 | -0.03642 | -0.11447 |
| 3944_RPA3963_CDS;__4 | -0.13032 | 0.02372 | 0.10055 | -0.04626 |
| 3945_RPA3964_CDS;__4 | -0.02216 | 0.01874 | 0.00830 | -0.08646 |
| 3946_RPA3965_CDS;__4 | 0.10488 | 0.06931 | 0.00896 | -0.06669 |
| 3947_RPA3966_CDS;__4 | -0.07868 | 0.06529 | 0.02560 | -0.00445 |
| 3948_RPA3967_CDS;__4 | -0.09966 | 0.05508 | 0.00937 | 0.05901 |
| 3949_RPA3968_CDS;__4 | -0.11204 | -0.26233 | 0.06381 | 0.05367 |
| 3950_RPA3969_CDS;__4 | -0.17682 | 0.06746 | -0.01088 | 0.01561 |
| 3951_RPA3970_CDS;__4 | -0.06777 | -0.15338 | -0.09938 | 0.04593 |
| 3952_RPA3971_thiD;__ | -0.11948 | 0.06929 | 0.01513 | 0.09845 |
| 3953_RPA3972_CDS;__4 | 0.04166 | 0.05701 | 0.16834 | 0.02987 |
| 3954_RPA3973_CDS;__4 | -0.00349 | 0.07157 | 0.11569 | 0.07452 |
| 3955_RPA3974_CDS;__4 | -0.08098 | -0.11615 | -0.03071 | -0.03249 |
| 3956_RPA3975_CDS;__4 | 0.07718 | 0.15516 | -0.24571 | -0.12884 |
| 3957_RPA3976_CDS;__4 | -0.16760 | 0.07504 | -0.00458 | 0.01960 |
| 3958_RPA3977_CDS;__4 | -0.14457 | -0.05152 | -0.02338 | -0.04688 |
| 3959_RPA3978_wpbE;__ | -0.14986 | -0.03302 | 0.01613 | 0.00122 |
| 3960_RPA3979_CDS;__4 | -0.06369 | -0.23328 | -0.04640 | -0.01612 |
| 3961_RPA3980_wbnF;__ | 0.07249 | 0.05208 | 0.15840 | 0.09317 |
| 3962_RPA3981_CDS;__4 | 0.24637 | 0.07753 | 0.10133 | 0.09415 |
| 3963_RPA3982_CDS;__4 | 0.48808 | 0.16048 | 0.01027 | 0.20199 |
| 3964_RPA3983_CDS;__4 | 0.14857 | 0.00989 | -0.01279 | -0.01192 |
| 3965_RPA3984_rfaE;__ | 0.03547 | -0.03958 | 0.08285 | -0.04674 |
| 3966_RPA3985_CDS;__4 | -0.08847 | 0.06076 | 0.07922 | 0.07322 |
| 3967_RPA3986_CDS;__4 | -0.03444 | -0.11126 | 0.08323 | 0.03699 |
| 3968_RPA3987_lpcA;__ | -0.02298 | 0.09830 | -0.04070 | -0.13397 |
| 3969_RPA3988_CDS;__4 | 0.06802 | 0.10985 | 0.02903 | 0.05797 |
| 3970_RPA3989_CDS;__4 | 0.03634 | -0.04431 | 0.13179 | -0.06023 |
| 3971_RPA3990_galE;__ | 0.01437 | 0.07518 | 0.01187 | -0.01162 |
| 3972_RPA3991_CDS;__4 | -0.22227 | 0.06417 | 0.00687 | 0.05780 |
| 3973_RPA3992_CDS;__4 | -0.13835 | -0.12585 | -0.00987 | 0.03490 |
| 3974_RPA3993_CDS;__4 | 0.10909 | -0.18984 | 0.18677 | -0.12463 |
| 3975_RPA3994_CDS;__4 | 0.15003 | -0.05737 | 0.07809 | -0.13168 |
| 3976_RPA3995_CDS;__4 | 0.54218 | -0.04874 | 0.02828 | 0.10594 |
| 3977_RPA3996_CDS;__4 | 0.37219 | -0.44306 | -0.16635 | -0.04949 |
| 3978_RPA3997_CDS;__4 | 0.34058 | 0.08578 | 0.06994 | -0.47045 |
| 3979_RPA3998_CDS;__4 | 0.88879 | 0.34465 | 0.00549 | 0.54753 |
| 3980_RPA3999_CDS;__4 | 0.40685 | -0.15965 | -0.03571 | -0.00709 |
| 3981_RPA4000_CDS;__4 | 0.28403 | 0.05207 | 0.03219 | 0.01264 |
| 3982_RPA4001_CDS;__4 | -0.17064 | 0.06629 | 0.01307 | 0.00121 |
| 3983_RPA4002_CDS;__4 | -0.15398 | 0.10129 | -0.07652 | 0.01732 |
| 3984_RPA4003_CDS;__4 | 0.27258 | -0.03769 | 0.40130 | -0.70457 |
| 3985_RPA4004_CDS;__4 | 0.10569 | 0.10505 | -0.28593 | -0.02711 |
| 3986_RPA4005_rpsU,_S | 0.12554 | -0.02347 | -0.03577 | 0.08629 |
| 3987_RPA4006_CDS;__4 | 0.51081 | -0.00822 | -0.02549 | -0.09064 |
| 3988_RPA4007_CDS;__4 | 0.68453 | 0.22714 | -0.12760 | 0.07374 |
| 3989_RPA4008_CDS;__4 | 0.24732 | 0.03960 | -0.01104 | 0.04501 |
| 3990_RPA4009_CDS;__4 | 0.01531 | 0.06972 | 0.03705 | -0.06816 |
| 3991_RPA4010_CDS;__4 | -0.06080 | 0.12701 | 0.03678 | 0.11883 |
| 3992_RPA4011_CDS;__4 | 0.08378 | 0.07983 | 0.07798 | -0.19505 |
| 3993_RPA4012_CDS;__4 | 0.21024 | 0.10426 | 0.00519 | 0.06329 |
| 3994_RPA4013_CDS;__4 | 0.08424 | 0.06806 | 0.02305 | -0.00375 |

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| 3995_RPA4014_CDS;__4 | 1.06261 | 0.31326 | -0.10742 | 0.19075 |
| 3996_RPA4015_ahcY;__ | -0.34597 | 0.05766 | -0.08459 | -0.01336 |
| 3997_RPA4016_,etK;__ | -0.25030 | 0.10617 | -0.12155 | -0.02875 |
| 3998_RPA4017_CDS;__4 | 0.11838 | 0.08543 | 0.07300 | 0.13767 |
| 3999_RPA4018_CDS;__4 | -0.17086 | 0.07711 | -0.05336 | 0.02434 |
| 4000_RPA4019_CDS;__4 | -0.25337 | 0.06411 | -0.00496 | 0.03662 |
| 4001_RPA4020_CDS;__4 | -0.12910 | -0.03069 | -0.00637 | 0.02988 |
| 4002_RPA4021_CDS;__4 | -0.00830 | -0.03410 | 0.08251 | -0.00562 |
| 4003_RPA4022_CDS;__4 | -0.15435 | 0.01763 | 0.07070 | 0.01254 |
| 4004_RPA4023_CDS;__4 | 0.01863 | 0.04557 | 0.00407 | 0.03119 |
| 4005_RPA4024_CDS;__4 | -0.13230 | -0.01701 | -0.06725 | 0.06581 |
| 4006_RPA4025_CDS;__4 | 0.07628 | 0.10121 | -0.03853 | 0.01894 |
| 4007_RPA4026_CDS;__4 | -0.12312 | -0.02005 | -0.06058 | 0.04196 |
| 4008_RPA4027_CDS;__4 | -0.18271 | 0.03470 | 0.00741 | -0.02542 |
| 4009_RPA4028_CDS;__4 | -0.00546 | -0.14098 | 0.18834 | -0.21338 |
| 4010_RPA4029_CDS;__4 | -0.18240 | 0.09486 | -0.03057 | 0.12346 |
| 4011_RPA4030_CDS;__4 | 0.25363 | 0.06902 | 0.14112 | 0.16604 |
| 4012_RPA4031_CDS;__4 | -0.00557 | -0.02545 | 0.07490 | 0.10144 |
| 4013_RPA4032_purU;__ | -0.10003 | 0.04329 | 0.07868 | -0.04142 |
| 4014_RPA4033_hemD;__ | 0.14347 | 0.13206 | -0.02062 | -0.07245 |
| 4015_RPA4034_CDS;__4 | -0.17747 | 0.09382 | -0.04669 | 0.03587 |
| 4016_RPA4035_CDS;__4 | -0.10553 | 0.00505 | -0.03929 | 0.05433 |
| 4017_RPA4036_CDS;__4 | -0.15982 | 0.04297 | 0.06534 | 0.08307 |
| 4018_RPA4037_CDS;__4 | -0.14800 | -0.49310 | -0.15232 | -0.02123 |
| 4019_RPA4038_CDS;__4 | -0.16964 | 0.05458 | 0.08866 | 0.06085 |
| 4020_RPA4039_CDS;__4 | 0.01350 | -0.12081 | 0.01345 | 0.09052 |
| 4021_RPA4040_CDS;__4 | 0.00781 | 0.06351 | 0.07951 | 0.04659 |
| 4022_RPA4041_CDS;__4 | -0.02694 | 0.11142 | 0.00988 | 0.17031 |
| 4023_RPA4042_CDS;__4 | -0.15636 | 0.06407 | 0.03883 | 0.01639 |
| 4024_RPA4043_CDS;__4 | -0.08799 | 0.01660 | 0.14725 | 0.01609 |
| 4025_RPA4044_CDS;__4 | -0.16895 | 0.03252 | 0.06028 | -0.04666 |
| 4026_RPA4045_CDS;__4 | -0.23964 | 0.12665 | -0.11335 | 0.02344 |
| 4027_RPA4046_CDS;__4 | -0.01812 | 0.02729 | -0.04428 | -0.03311 |
| 4028_RPA4047_CDS;__4 | 0.50011 | -0.23514 | -0.31596 | -0.12538 |
| 4029_RPA4048_rfbF;__ | 0.54069 | 0.18605 | -0.07076 | 0.04810 |
| 4030_RPA4049_rfbG;__ | 0.61943 | 0.04715 | -0.21551 | -0.06173 |
| 4031_RPA4050_CDS;__4 | 0.29976 | 0.26156 | -0.32753 | 0.12008 |
| 4032_RPA4051_CDS;__4 | 0.79262 | 0.29188 | -0.23470 | 0.08532 |
| 4033_RPA4052_CDS;__4 | 0.34769 | 0.18238 | -0.07754 | 0.16021 |
| 4034_RPA4053_CDS;__4 | 0.39812 | 0.13280 | 0.11102 | 0.06220 |
| 4035_RPA4054_CDS;__4 | 0.32374 | 0.08020 | -0.03605 | -0.10567 |
| 4036_RPA4055_CDS;__4 | 0.31698 | 0.09505 | 0.15189 | -0.17166 |
| 4037_RPA4056_CDS;__4 | 0.56559 | 0.07880 | -0.08892 | -0.01592 |
| 4038_RPA4057_CDS;__4 | 0.38785 | 0.16554 | -0.02208 | 0.04166 |
| 4039_RPA4058_CDS;__4 | 0.64629 | 0.03163 | -0.08241 | 0.16855 |
| 4040_RPA4059_CDS;__4 | 0.84758 | 0.13290 | -0.00439 | -0.09163 |
| 4041_RPA4060_CDS;__4 | 0.70694 | -0.15031 | -0.14415 | -0.07682 |
| 4042_RPA4061_CDS;__4 | 0.77496 | 0.13805 | 0.10461 | 0.13290 |
| 4043_RPA4062_CDS;__4 | 0.85675 | 0.03026 | -0.11360 | 0.16682 |
| 4044_RPA4063_CDS;__4 | 0.85172 | 0.10416 | -0.07739 | 0.21785 |
| 4045_RPA4064_CDS;__4 | 1.05703 | -0.06085 | -0.16508 | 0.06866 |
| 4046_RPA4065_CDS;__4 | 1.05436 | 0.19229 | -0.07137 | 0.19248 |
| 4047_RPA4066_CDS;__4 | -0.18988 | -0.04993 | 0.09081 | 0.06880 |
| 4048_RPA4067_CDS;__4 | 0.18663 | -0.39663 | 0.10426 | 0.07967 |
| 4049_RPA4068_CDS;__4 | -0.13571 | 0.02703 | 0.21621 | -0.24576 |
| 4050_RPA4069_CDS;__4 | -0.08379 | 0.03432 | 0.11855 | 0.07808 |
| 4051_RPA4070_msrA;__ | -0.08760 | 0.00682 | 0.23933 | -0.04413 |

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| 4052_RPA4071_carB;__ | -0.21280 | 0.05421 | -0.01598 | 0.01503 |
| 4053_RPA4072_greA;__ | -0.16510 | 0.01805 | -0.14605 | -0.05047 |
| 4054_RPA4073_CDS;__4 | -0.03861 | 0.03999 | 0.12240 | -0.14913 |
| 4055_RPA4074_CDS;__4 | -0.17525 | -0.18585 | 0.09999 | 0.06243 |
| 4056_RPA4075_trxB;__ | -0.05855 | -0.01560 | -0.01930 | -0.05248 |
| 4057_RPA4076_CDS;__4 | -0.12873 | 0.01488 | 0.15040 | -0.05361 |
| 4058_RPA4077_CDS;__4 | 0.03497 | 0.10769 | -0.09232 | -0.13218 |
| 4059_RPA4078_CDS;__4 | 0.30615 | 0.03432 | 0.04204 | 0.16846 |
| 4060_RPA4079_CDS;__4 | 0.20203 | -0.05421 | -0.12071 | -0.07656 |
| 4061_RPA4080_CDS;__4 | 0.24907 | 0.03216 | -0.06474 | -0.00121 |
| 4062_RPA4081_CDS;__4 | 0.15240 | 0.12981 | -0.02141 | -0.02090 |
| 4063_RPA4082_CDS;__4 | 0.65717 | 0.11180 | -0.11738 | 0.10863 |
| 4064_RPA4083_CDS;__4 | 0.05215 | -0.01521 | -0.21922 | -0.05943 |
| 4065_RPA4084_CDS;__4 | 0.02006 | 0.00877 | 0.01473 | -0.10261 |
| 4066_RPA4085_acrR3;__ | 0.22626 | -0.07783 | 0.03167 | -0.05248 |
| 4067_RPA4086_CDS;__4 | 0.19998 | -0.44960 | -0.13423 | 0.11091 |
| 4068_RPA4087_CDS;__4 | 0.09292 | 0.01346 | 0.01607 | -0.05513 |
| 4069_RPA4088_CDS;__4 | 0.19177 | 0.00787 | 0.10122 | -0.09591 |
| 4070_RPA4089_CDS;__4 | 0.42087 | 0.18793 | -0.16221 | -0.02386 |
| 4071_RPA4090_CDS;__4 | 0.37796 | 0.12228 | 0.01373 | -0.29182 |
| 4072_RPA4091_CDS;__4 | 0.37067 | 0.09110 | 0.11685 | 0.02633 |
| 4073_RPA4092_CDS;__4 | 0.35838 | 0.05418 | 0.08707 | -0.05687 |
| 4074_RPA4093_CDS;__4 | 0.85196 | -0.40083 | 0.01861 | -0.05335 |
| 4075_RPA4094_CDS;__4 | 0.19740 | 0.09532 | 0.03569 | -0.05344 |
| 4076_RPA4095_CDS;__4 | -0.01723 | 0.03609 | 0.10596 | -0.00148 |
| 4077_RPA4096_CDS;__4 | 0.09928 | -0.00177 | 0.03129 | 0.07417 |
| 4078_RPA4097_PA3574_ | 0.13335 | 0.10863 | 0.07306 | 0.17503 |
| 4079_RPA4098_CDS;__4 | 0.30802 | -0.48296 | -0.03983 | -0.10017 |
| 4080_RPA4099_CDS;__4 | 0.26467 | -0.00508 | 0.45699 | -1.29132 |
| 4081_RPA4100_CDS;__4 | 0.11165 | 0.13152 | -0.00480 | 0.11921 |
| 4082_RPA4101_CDS;__4 | 0.08546 | -0.17996 | 0.01344 | -0.01842 |
| 4083_RPA4102_CDS;__4 | 0.15018 | 0.05280 | 0.14619 | 0.10716 |
| 4084_RPA4103_CDS;__4 | 0.27494 | 0.14556 | -0.05749 | -0.07627 |
| 4085_RPA4104_CDS;__4 | 0.53859 | 0.05438 | 0.08499 | 0.09857 |
| 4086_RPA4105_rmrA;__ | 0.29597 | 0.03784 | -0.02010 | 0.06863 |
| 4087_RPA4106_rmrB;__ | 0.15042 | 0.09886 | 0.05244 | 0.02818 |
| 4088_RPA4107_oprN;__ | 0.37689 | 0.01358 | 0.12521 | 0.03177 |
| 4089_RPA4108_CDS;__4 | 0.46262 | -0.04726 | 0.01804 | 0.04099 |
| 4090_RPA4109_CDS;__4 | 0.72363 | 0.17689 | -0.13262 | 0.31845 |
| 4091_RPA4110_mycA;__ | 0.10404 | 0.10270 | -0.00520 | -0.03730 |
| 4092_RPA4111_CDS;__4 | 0.46477 | 0.21527 | -0.11921 | 0.11019 |
| 4093_RPA4112_CDS;__4 | 0.52870 | -0.20882 | -0.12675 | -0.25357 |
| 4094_RPA4113_CDS;__4 | 0.34141 | 0.10710 | 0.00182 | 0.09379 |
| 4095_RPA4114_CDS;__4 | 0.60605 | 0.13021 | 0.04676 | -0.11799 |
| 4096_RPA4115_trbI;__ | 0.24581 | 0.00749 | 0.09374 | 0.06339 |
| 4097_RPA4116_trbG;__ | 0.07914 | 0.10799 | -0.05824 | 0.04669 |
| 4098_RPA4117_trbF;__ | 0.10608 | 0.04678 | -0.07358 | -0.11576 |
| 4099_RPA4118_CDS;__4 | 0.17377 | 0.05642 | -0.05345 | 0.03055 |
| 4100_RPA4119_CDS;__4 | 0.46487 | 0.00132 | -0.06489 | 0.02408 |
| 4101_RPA4120_CDS;__4 | 0.17416 | 0.01388 | 0.03115 | -0.05526 |
| 4102_RPA4121_trbE;__ | 0.16626 | -0.01171 | -0.00931 | 0.08850 |
| 4103_RPA4122_CDS;__4 | 0.03635 | 0.11519 | -0.33881 | 0.07228 |
| 4104_RPA4123_trbC;__ | 0.19367 | 0.03435 | -0.05790 | -0.06949 |
| 4105_RPA4124_trbB;__ | 0.21465 | -0.42250 | -0.22745 | -0.05237 |
| 4106_RPA4125_CDS;__4 | 0.88768 | 0.18881 | -0.30437 | -0.09207 |
| 4107_RPA4126_CDS;__4 | 0.43401 | 0.01715 | -0.02720 | -0.23442 |
| 4108_RPA4127_CDS;__4 | 0.34593 | 0.09474 | -0.04861 | -0.15901 |

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| 4109_RPA4128_CDS;__4 | 0.03835 | 0.02789 | -0.08442 | 0.04013 |
| 4110_RPA4129_CDS;__4 | 0.58956 | 0.13725 | -0.20895 | 0.12898 |
| 4111_RPA4130_CDS;__4 | 0.57546 | -0.13810 | -0.04387 | -0.20484 |
| 4112_RPA4131_CDS;__4 | 0.32302 | 0.05351 | -0.04066 | -0.08918 |
| 4113_RPA4132_traG;__ | 0.20126 | 0.11858 | 0.00214 | 0.11757 |
| 4114_RPA4133_CDS;__4 | 0.18081 | 0.17484 | -0.05544 | 0.24173 |
| 4115_RPA4134_CDS;__4 | 0.75796 | 0.10780 | -0.03004 | 0.27562 |
| 4116_RPA4135_CDS;__4 | 0.15918 | 0.02096 | 0.28926 | -0.03001 |
| 4117_RPA4136_CDS;__4 | 0.37078 | 0.03037 | -0.04732 | 0.04007 |
| 4118_RPA4137_CDS;__4 | -0.30527 | 0.00383 | -0.08069 | 0.02300 |
| 4119_RPA4138_CDS;__4 | -0.17236 | 0.01729 | -0.03961 | -0.02739 |
| 4120_RPA4139_CDS;__4 | 0.21987 | 0.05263 | 0.27092 | 0.06880 |
| 4121_RPA4140_CDS;__4 | -0.18005 | -0.02877 | 0.09679 | -0.13949 |
| 4122_RPA4141_CDS;__4 | 0.57476 | 0.09198 | 0.15856 | 0.17067 |
| 4123_RPA4142_CDS;__4 | 0.39297 | 0.10694 | -0.02654 | 0.07047 |
| 4124_RPA4143_fnr;__ | -0.16910 | -0.07378 | 0.15481 | 0.07717 |
| 4125_RPA4144_CDS;__4 | 0.10191 | 0.09759 | -0.07596 | -0.00932 |
| 4126_RPA4145_nirK;__ | -0.16690 | 0.09067 | -0.05339 | 0.04697 |
| 4127_RPA4146_CDS;__4 | -0.02109 | -0.04886 | 0.07877 | 0.00361 |
| 4128_RPA4147_CDS;__4 | -0.08961 | -0.25209 | -0.07382 | 0.05599 |
| 4129_RPA4148_prsA;__ | 0.00969 | 0.04900 | 0.10498 | 0.00077 |
| 4130_RPA4149_CDS;__4 | -0.11429 | 0.06419 | 0.03026 | -0.00775 |
| 4131_RPA4150_CDS;__4 | 0.03818 | 0.02519 | 0.14420 | 0.10112 |
| 4132_RPA4151_CDS;__4 | -0.19303 | 0.03611 | 0.10096 | 0.06442 |
| 4133_RPA4152_fbpA;__ | -0.27055 | 0.06586 | -0.04488 | -0.12023 |
| 4134_RPA4153_fpbB;__ | -0.09746 | -0.24190 | 0.04746 | 0.04333 |
| 4135_RPA4154_CDS;__4 | -0.08104 | 0.10854 | 0.04616 | 0.15481 |
| 4136_RPA4155_CDS;__4 | -0.20105 | 0.12239 | -0.11355 | -0.09723 |
| 4137_RPA4156_CDS;__4 | -0.17605 | 0.11155 | -0.10188 | -0.05796 |
| 4138_RPA4157_CDS;__4 | -0.11744 | 0.05421 | 0.04693 | -0.00226 |
| 4139_RPA4158_potI;__ | -0.17615 | -0.00747 | 0.07072 | -0.02577 |
| 4140_RPA4159_potH;__ | -0.21842 | -0.02152 | 0.13829 | 0.02789 |
| 4141_RPA4160_CDS;__4 | -0.15055 | 0.02919 | 0.09158 | 0.02999 |
| 4142_RPA4161_CDS;__4 | -0.06795 | 0.02265 | 0.15820 | 0.00124 |
| 4143_RPA4162_CDS;__4 | -0.12182 | 0.05983 | 0.02037 | 0.06811 |
| 4144_RPA4163_CDS;__4 | -0.12200 | 0.11247 | -0.09523 | 0.04553 |
| 4145_RPA4164_CDS;__4 | -0.24159 | 0.08391 | -0.07922 | -0.02242 |
| 4146_RPA4165_CDS;__4 | -0.01014 | -0.03099 | -0.24219 | 0.04074 |
| 4147_RPA4166_CDS;__4 | -0.22633 | 0.04973 | 0.01069 | 0.00688 |
| 4148_RPA4167_CDS;__4 | -0.09820 | -0.15216 | -0.02001 | 0.06463 |
| 4149_RPA4168_CDS;__4 | -0.00036 | -0.02029 | 0.04095 | -0.00564 |
| 4150_RPA4169_CDS;__4 | 0.24796 | -0.42367 | -0.14097 | 0.02131 |
| 4151_RPA4170_CDS;__4 | 0.04821 | 0.10975 | -0.16296 | 0.18664 |
| 4152_RPA4171_CDS;__4 | 0.89511 | 0.13969 | -0.22717 | 0.03131 |
| 4153_RPA4172_CDS;__4 | 0.44195 | -0.08544 | 0.06275 | -0.18528 |
| 4154_RPA4173_CDS;__4 | 0.11838 | 0.08634 | 0.03616 | 0.14641 |
| 4155_RPA4174_purE;__ | -0.07417 | -0.00790 | -0.03220 | 0.07007 |
| 4156_RPA4175_purK;__ | -0.01710 | 0.07308 | 0.00319 | -0.03427 |
| 4157_RPA4176_rpS21;__ | 0.13716 | 0.04698 | -0.14022 | -0.01349 |
| 4158_RPA4177_CDS;__4 | -0.07539 | -0.01770 | 0.00307 | 0.02915 |
| 4159_RPA4178_CDS;__4 | 0.05129 | 0.06274 | -0.15455 | 0.09840 |
| 4160_RPA4179_CDS;__4 | -0.00486 | 0.14507 | -0.12582 | 0.00345 |
| 4161_RPA4180_pntB;__ | -0.18755 | -0.44274 | -0.35183 | -0.07271 |
| 4162_RPA4181_pntA_be | -0.05740 | -0.48612 | -0.29529 | -0.10234 |
| 4163_RPA4182_pntA_al | -0.19394 | 0.03445 | -0.20734 | -0.09090 |
| 4164_RPA4183_CDS;__4 | 0.02478 | -0.01422 | 0.04148 | -0.05610 |
| 4165_RPA4184_CDS;__4 | 0.52071 | 0.12867 | 0.00032 | 0.02697 |

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| 4166_RPA4185_CDS;__4 | -0.10864 | 0.06795 | -0.05101 | -0.06330 |
| 4167_RPA4186_CDS;__4 | -0.07583 | 0.04623 | 0.09059 | -0.21416 |
| 4168_RPA4187_CDS;__4 | -0.03644 | 0.06438 | 0.06988 | 0.08190 |
| 4169_RPA4188_CDS;__4 | -0.21827 | 0.07055 | -0.02542 | -0.05220 |
| 4170_RPA4189_CDS;__4 | -0.19878 | -0.00785 | -0.03552 | 0.04001 |
| 4171_RPA4190_CDS;__4 | 0.29345 | -0.02574 | -0.08494 | 0.21622 |
| 4172_RPA4191_CDS;__4 | -0.04108 | -0.47299 | -0.08585 | -0.17310 |
| 4173_RPA4192_CDS;__4 | 0.03291 | 0.03418 | 0.19560 | -0.01600 |
| 4174_RPA4193_pyk;__4 | -0.18282 | 0.07775 | -0.00344 | 0.06105 |
| 4175_RPA4194_osmC;__ | -0.09730 | -0.01478 | 0.26230 | 0.09663 |
| 4176_RPA4195_CDS;__4 | 0.19357 | 0.00779 | 0.08155 | 0.01535 |
| 4177_RPA4196_CDS;__4 | 0.12587 | 0.13373 | -0.04808 | 0.06047 |
| 4178_RPA4197_rpmJ,_L | -0.39854 | 0.05507 | -0.42704 | -0.20430 |
| 4179_RPA4198_CDS;__4 | -0.18154 | 0.09118 | -0.09984 | 0.05635 |
| 4180_RPA4199_CDS;__4 | -0.02986 | -0.20079 | -0.05111 | 0.04066 |
| 4181_RPA4200_CDS;__4 | 0.07964 | -0.05406 | -0.08965 | -0.07046 |
| 4182_RPA4201_CDS;__4 | 0.24022 | -0.08745 | -0.38468 | -0.12634 |
| 4183_RPA4202_CDS;__4 | -0.05665 | -0.10777 | -0.06767 | -0.04076 |
| 4184_RPA4203_CDS;__4 | 0.06523 | 0.16739 | -0.20839 | 0.05017 |
| 4185_RPA4204_CDS;__4 | 0.66685 | 0.17062 | -0.11608 | 0.16658 |
| 4186_RPA4205_CDS;__4 | -0.03019 | -0.03196 | -0.07101 | 0.02611 |
| 4187_RPA4206_CDS;__4 | -0.28589 | 0.07523 | -0.11775 | -0.06850 |
| 4188_RPA4207_CDS;__4 | -0.12821 | 0.04362 | 0.03336 | -0.06123 |
| 4189_RPA4208_CDS;__4 | 0.08699 | -0.49741 | -0.03973 | 0.11190 |
| 4190_RPA4209_glnA_II | -0.14706 | 0.11657 | -0.20396 | -0.01981 |
| 4191_RPA4210_CDS;__4 | 0.36496 | 0.14051 | 0.19705 | 0.17586 |
| 4192_RPA4211_glsA;__ | 0.00009 | -0.09542 | -0.05247 | 0.06081 |
| 4193_RPA4212_CDS;__4 | 0.03436 | -0.06446 | 0.25066 | -0.20048 |
| 4194_RPA4213_CDS;__4 | 0.01435 | 0.08129 | -0.03279 | -0.14563 |
| 4195_RPA4214_CDS;__4 | -0.01551 | 0.06141 | -0.16993 | -0.03150 |
| 4196_RPA4215_cysG;__ | -0.09508 | 0.05028 | 0.02654 | 0.04141 |
| 4197_RPA4216_glcB;__ | -0.28132 | 0.07593 | -0.07696 | -0.06234 |
| 4198_RPA4217_CDS;__4 | -0.19697 | 0.03641 | -0.14553 | -0.07185 |
| 4199_RPA4218_CDS;__4 | 0.66303 | 0.15425 | -0.06570 | 0.13802 |
| 4200_RPA4219_CDS;__4 | -0.03974 | 0.05081 | 0.09240 | -0.01536 |
| 4201_RPA4220_CDS;__4 | -0.04902 | 0.10846 | -0.14253 | -0.01323 |
| 4202_RPA4221_CDS;__4 | 0.01391 | 0.01080 | 0.26267 | -0.03231 |
| 4203_RPA4222_CDS;__4 | 0.36900 | -0.14226 | -0.12612 | 0.10238 |
| 4204_RPA4223_CDS;__4 | 0.19105 | 0.06556 | -0.11238 | 0.06636 |
| 4205_RPA4224_CDS;__4 | 0.94336 | 0.17994 | -0.14835 | 0.33707 |
| 4206_RPA4225_CDS;__4 | 0.17703 | -0.15602 | -0.13276 | -0.16277 |
| 4207_RPA4226_CDS;__4 | 0.06691 | 0.07157 | 0.08905 | -0.02188 |
| 4208_RPA4227_ureG;__ | 0.00125 | 0.06769 | 0.04304 | 0.06514 |
| 4209_RPA4228_CDS;__4 | 0.62054 | -0.40542 | -0.19302 | 0.17939 |
| 4210_RPA4229_CDS;__4 | 0.51133 | 0.09185 | -0.05202 | -0.02488 |
| 4211_RPA4230_CDS;__4 | -0.24313 | -0.01943 | -0.19181 | -0.14623 |
| 4212_RPA4231_CDS;__4 | 0.05639 | -0.11182 | 0.04270 | 0.01645 |
| 4213_RPA4232_CDS;__4 | 0.43625 | 0.22428 | -0.14662 | 0.11926 |
| 4214_RPA4233_CDS;__4 | -0.00581 | -0.07342 | 0.07871 | 0.06963 |
| 4215_RPA4234_aadR;__ | 0.08980 | -0.09554 | -0.20239 | -0.05897 |
| 4216_RPA4235_CDS;__4 | 0.53459 | 0.04727 | -0.14362 | 0.08127 |
| 4217_RPA4236_CDS;__4 | 0.05358 | 0.03957 | -0.08213 | -0.05933 |
| 4218_RPA4237_CDS;__4 | -0.02769 | 0.13303 | -0.12599 | 0.04659 |
| 4219_RPA4238_CDS;__4 | 0.05231 | 0.06672 | 0.08222 | -0.01564 |
| 4220_RPA4239_CDS;__4 | 0.27270 | 0.10169 | 0.09259 | -0.04605 |
| 4221_RPA4240_CDS;__4 | -0.06218 | -0.25348 | -0.14448 | -0.05524 |
| 4222_RPA4241_CDS;__4 | 0.08610 | -0.45702 | -0.09775 | -0.07095 |

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| 4223_RPA4242_CDS;__4 | 0.05221 | 0.06653 | 0.08564 | 0.10645 |
| 4224_RPA4243_phaC;__ | -0.04714 | -0.19778 | -0.09195 | 0.04945 |
| 4225_RPA4244_CDS;__4 | -0.11915 | -0.07146 | -0.10062 | -0.06189 |
| 4226_RPA4245_CDS;__4 | 0.06405 | 0.09691 | -0.01494 | -0.01432 |
| 4227_RPA4246_CDS;__4 | -0.10139 | 0.06720 | 0.04902 | -0.07002 |
| 4228_RPA4247_fixL;__ | -0.04975 | -0.19715 | -0.04574 | 0.05718 |
| 4229_RPA4248_fixJ;__ | -0.13013 | 0.05506 | 0.05935 | 0.04534 |
| 4230_RPA4249_CDS;__4 | 0.01147 | 0.06784 | 0.14922 | -0.09741 |
| 4231_RPA4250_fixK2;__ | -0.22080 | -0.12869 | -0.24799 | 0.06813 |
| 4232_RPA4251_oahs;__ | -0.19565 | -0.00455 | -0.10266 | -0.00350 |
| 4233_RPA4252_nuoN;__ | -0.08182 | -0.00166 | 0.18148 | 0.04904 |
| 4234_RPA4253_nuoM;__ | -0.21194 | 0.02363 | 0.00320 | -0.02422 |
| 4235_RPA4254_nuoL;__ | -0.07891 | 0.05046 | 0.01293 | -0.06858 |
| 4236_RPA4255_nuoK;__ | -0.19644 | -0.01158 | 0.09871 | 0.09786 |
| 4237_RPA4256_nuoJ;__ | 0.02758 | -0.53696 | 0.00102 | -0.03402 |
| 4238_RPA4257_nuoI;__ | -0.06064 | 0.09257 | -0.22955 | 0.04573 |
| 4239_RPA4258_nuoH;__ | -0.18246 | -0.03439 | -0.00550 | 0.04584 |
| 4240_RPA4259_nuoG;__ | -0.08254 | -0.00808 | 0.04386 | 0.01331 |
| 4241_RPA4260_nuoF;__ | 0.02601 | -0.02382 | -0.07941 | -0.07818 |
| 4242_RPA4261_nuoE;__ | -0.14818 | 0.05973 | 0.10616 | -0.10002 |
| 4243_RPA4262_nuoCD;__ | -0.21488 | 0.00797 | 0.10512 | 0.03576 |
| 4244_RPA4263_nuoB;__ | -0.07846 | -0.06052 | -0.04254 | -0.02948 |
| 4245_RPA4264_nuoA;__ | -0.17312 | 0.02679 | -0.14745 | 0.08359 |
| 4246_RPA4265_ndvA;__ | -0.14253 | 0.04822 | 0.05833 | 0.07292 |
| 4247_RPA4266_CDS;__4 | -0.12058 | 0.06251 | -0.02328 | -0.00433 |
| 4248_RPA4267_CDS;__4 | -0.26130 | 0.09091 | -0.10324 | 0.01834 |
| 4249_RPA4268_CDS;__4 | -0.24752 | 0.07245 | -0.08353 | -0.02733 |
| 4250_RPA4269_CDS;__4 | -0.06994 | -0.21445 | 0.06355 | -0.06156 |
| 4251_RPA4270_thrB;__ | -0.19173 | 0.04722 | 0.08081 | -0.08155 |
| 4252_RPA4271_lytB;__ | -0.31834 | 0.02427 | 0.04198 | 0.06037 |
| 4253_RPA4272_CDS;__4 | -0.34423 | 0.08884 | -0.08601 | 0.01666 |
| 4254_RPA4273_CDS;__4 | 0.07388 | 0.03931 | 0.26008 | 0.13242 |
| 4255_RPA4274_CDS;__4 | 1.15709 | -0.03497 | -0.18582 | 0.03270 |
| 4256_RPA4275_CDS;__4 | 0.55669 | 0.18443 | -0.07261 | -0.06188 |
| 4257_RPA4276_CDS;__4 | 0.58403 | 0.31266 | -0.21283 | 0.32160 |
| 4258_RPA4277_CDS;__4 | 0.13373 | -0.20076 | 0.05039 | 0.16360 |
| 4259_RPA4278_CDS;__4 | 0.99576 | -0.01610 | -0.22178 | -0.09063 |
| 4260_RPA4279_CDS;__4 | 0.13500 | -0.07272 | 0.08006 | 0.16449 |
| 4261_RPA4280_CDS;__4 | 0.04749 | -0.24605 | 0.08201 | 0.01467 |
| 4262_RPA4281_CDS;__4 | -0.02135 | -0.11057 | 0.04545 | 0.13419 |
| 4263_RPA4282_CDS;__4 | -0.11907 | 0.05656 | 0.08828 | -0.12519 |
| 4264_RPA4283_CDS;__4 | -0.22812 | 0.01561 | 0.11025 | 0.03452 |
| 4265_RPA4284_CDS;__4 | -0.25097 | -0.04322 | 0.09924 | 0.08368 |
| 4266_RPA4285_CDS;__4 | -0.23642 | 0.06107 | 0.05844 | 0.07452 |
| 4267_RPA4286_CDS;__4 | -0.15473 | 0.04816 | 0.07326 | 0.07143 |
| 4268_RPA4287_CDS;__4 | -0.21387 | 0.07133 | 0.00919 | 0.05647 |
| 4269_RPA4288_CDS;__4 | -0.07459 | 0.05961 | 0.09938 | 0.10964 |
| 4270_RPA4289_CDS;__4 | -0.22060 | 0.00200 | 0.17218 | 0.04161 |
| 4271_RPA4290_CDS;__4 | -0.08585 | 0.08169 | 0.08376 | 0.12146 |
| 4272_RPA4291_pucBb;__ | -0.19546 | -0.03763 | -0.16103 | -0.08199 |
| 4273_RPA4292_pucAb;__ | 0.02186 | 0.12166 | -0.41723 | -0.37390 |
| 4274_RPA4293_CDS;__4 | -0.22407 | 0.02803 | -0.22391 | -0.06756 |
| 4275_RPA4294_CDS;__4 | -0.13527 | -0.01928 | -0.06017 | -0.04190 |
| 4276_RPA4295_purA;__ | -0.17223 | 0.07133 | -0.07473 | -0.15256 |
| 4277_RPA4296_CDS;__4 | 0.29309 | 0.11180 | 0.11503 | 0.14401 |
| 4278_RPA4297_CDS;__4 | -0.14866 | 0.07052 | 0.07458 | 0.04243 |
| 4279_RPA4298_CDS;__4 | 0.04072 | 0.10315 | 0.11181 | 0.06513 |

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| 4280_RPA4299_CDS;__4 | -0.23293 | -0.00194 | 0.09339 | 0.02065 |
| 4281_RPA4300_CDS;__4 | -0.07364 | 0.03312 | 0.12473 | 0.11173 |
| 4282_RPA4301_CDS;__4 | 0.32160 | 0.17126 | 0.06426 | 0.42831 |
| 4283_RPA4302_CDS;__4 | -0.19015 | 0.05712 | 0.02541 | -0.00431 |
| 4284_RPA4303_CDS;__4 | -0.24811 | 0.06398 | -0.04365 | 0.00824 |
| 4285_RPA4304_CDS;__4 | -0.27707 | 0.09628 | -0.14263 | 0.01657 |
| 4286_RPA4305_CDS;__4 | -0.08265 | 0.01584 | -0.09164 | 0.02032 |
| 4287_RPA4306_CDS;__4 | 0.03329 | -0.47265 | -0.11964 | -0.06612 |
| 4288_RPA4307_CDS;__4 | -0.24594 | 0.06542 | -0.04997 | -0.01626 |
| 4289_RPA4308_serA;__ | -0.32428 | 0.10369 | -0.18499 | -0.04148 |
| 4290_RPA4309_serC;__ | -0.17826 | 0.13377 | -0.20463 | 0.01679 |
| 4291_RPA4310_CDS;__4 | 0.66437 | 0.02820 | 0.22064 | -0.14323 |
| 4292_RPA4311_CDS;__4 | -0.03403 | 0.07814 | 0.02560 | -0.09044 |
| 4293_RPA4312_CDS;__4 | 0.04577 | 0.09466 | -0.05519 | 0.07054 |
| 4294_RPA4313_CDS;__4 | 0.18742 | 0.06471 | 0.12413 | -0.10409 |
| 4295_RPA4314_gstA;__ | 0.00162 | 0.04366 | 0.13448 | -0.03569 |
| 4296_RPA4315_CDS;__4 | 0.46414 | -0.36735 | -0.24774 | -0.00089 |
| 4297_RPA4316_CDS;__4 | 0.28387 | 0.12560 | -0.09937 | -0.08919 |
| 4298_RPA4317_CDS;__4 | -0.03940 | -0.26145 | 0.03604 | -0.00930 |
| 4299_RPA4318_mrsA;__ | -0.21010 | 0.08137 | -0.01514 | 0.05841 |
| 4300_RPA4319_CDS;__4 | -0.00335 | 0.00405 | -0.02200 | 0.01080 |
| 4301_RPA4320_lldA;__ | -0.28125 | 0.04118 | -0.01031 | 0.03429 |
| 4302_RPA4321_paaG1;__ | -0.17178 | 0.08146 | 0.03102 | 0.10022 |
| 4303_RPA4322_CDS;__4 | -0.08084 | 0.07746 | -0.02325 | -0.00164 |
| 4304_RPA4323_CDS;__4 | 1.10323 | 0.17727 | -0.03473 | 0.16404 |
| 4305_RPA4324_CDS;__4 | 1.28642 | 0.14660 | -0.03680 | 0.52050 |
| 4306_RPA4325_aroE;__ | -0.16711 | -0.50450 | -0.21120 | -0.00299 |
| 4307_RPA4326_sulP;__ | -0.13569 | 0.08475 | -0.05564 | -0.05407 |
| 4308_RPA4327_CDS;__4 | -0.08671 | 0.09524 | 0.02963 | 0.13090 |
| 4309_RPA4328_CDS;__4 | -0.03303 | -0.15344 | -0.13936 | -0.00238 |
| 4310_RPA4329_CDS;__4 | -0.09870 | 0.11158 | -0.14815 | -0.08293 |
| 4311_RPA4330_CDS;__4 | -0.17387 | 0.13600 | -0.17644 | -0.05947 |
| 4312_RPA4331_aatA;__ | -0.23419 | 0.05322 | -0.07805 | -0.06790 |
| 4313_RPA4332_gstA;__ | -0.20899 | 0.06323 | 0.00390 | 0.04985 |
| 4314_RPA4333_CDS;__4 | -0.15671 | 0.06662 | 0.03680 | 0.06695 |
| 4315_RPA4334_CDS;__4 | -0.19815 | 0.01840 | 0.10856 | 0.09178 |
| 4316_RPA4335_CDS;__4 | 0.36311 | -0.05666 | -0.06054 | 0.01733 |
| 4317_RPA4336_CDS;__4 | -0.28381 | 0.06925 | 0.00081 | 0.06219 |
| 4318_RPA4337_CDS;__4 | -0.01553 | 0.05588 | 0.07690 | -0.09707 |
| 4319_RPA4338_CDS;__4 | 0.07985 | 0.10954 | 0.01348 | 0.08713 |
| 4320_RPA4339_CDS;__4 | -0.01722 | 0.03574 | 0.13412 | 0.03357 |
| 4321_RPA4340_ligE;__ | 0.04896 | -0.13055 | 0.06710 | 0.09077 |
| 4322_RPA4341_CDS;__4 | -0.17115 | -0.03178 | 0.04187 | 0.04451 |
| 4323_RPA4342_CDS;__4 | -0.16152 | 0.00330 | 0.14594 | 0.05609 |
| 4324_RPA4343_uvrB;__ | -0.17592 | 0.06586 | 0.00965 | 0.07876 |
| 4325_RPA4344_CDS;__4 | 0.23758 | 0.05270 | 0.06180 | -0.37789 |
| 4326_RPA4345_CDS;__4 | 0.05143 | 0.17061 | -0.18652 | 0.09472 |
| 4327_RPA4346_CDS;__4 | -0.32964 | 0.09263 | -0.12526 | -0.01412 |
| 4328_RPA4347_CDS;__4 | -0.31185 | 0.01071 | -0.08827 | 0.13229 |
| 4329_RPA4348_CDS;__4 | -0.06339 | 0.06737 | 0.06927 | -0.12622 |
| 4330_RPA4349_CDS;__4 | -0.04757 | 0.10008 | -0.08986 | 0.07053 |
| 4331_RPA4350_CDS;__4 | 0.04421 | 0.10891 | -0.16883 | 0.21853 |
| 4332_RPA4351_CDS;__4 | -0.22081 | 0.08975 | -0.10035 | -0.17691 |
| 4333_RPA4352_CDS;__4 | -0.18427 | 0.07188 | -0.06082 | -0.00948 |
| 4334_RPA4353_CDS;__4 | -0.03877 | 0.03157 | 0.01366 | 0.25267 |
| 4335_RPA4354_CDS;__4 | -0.23744 | 0.07703 | -0.05778 | 0.06478 |
| 4336_RPA4355_ptH;__4 | -0.02921 | 0.10804 | -0.02523 | 0.05114 |

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| 4337_RPA4356_ctc, _rp | -0.11600 | 0.00852 | -0.14811 | -0.07074 |
| 4338_RPA4357_CDS; __4 | -0.28190 | 0.02924 | -0.01524 | 0.12927 |
| 4339_RPA4358_lgt; __4 | -0.06537 | 0.05462 | 0.04820 | 0.05497 |
| 4340_RPA4359_CDS; __4 | -0.20279 | 0.03461 | 0.10402 | 0.06559 |
| 4341_RPA4360_CDS; __4 | -0.11599 | 0.09663 | -0.00508 | 0.09696 |
| 4342_RPA4361_CDS; __4 | -0.02461 | 0.08872 | 0.05839 | -0.02082 |
| 4343_RPA4362_ribP; __ | -0.33207 | 0.08851 | -0.17457 | -0.03452 |
| 4344_RPA4363_CDS; __4 | -0.26645 | 0.02665 | 0.02967 | 0.01271 |
| 4345_RPA4364_CDS; __4 | 0.02136 | 0.09921 | -0.00555 | 0.09942 |
| 4346_RPA4365_CDS; __4 | -0.18183 | 0.08712 | -0.06289 | -0.02224 |
| 4347_RPA4366_proC; __ | -0.14014 | 0.05778 | -0.20029 | 0.02465 |
| 4348_RPA4367_CDS; __4 | -0.19051 | 0.00576 | 0.14248 | 0.04836 |
| 4349_RPA4368_CDS; __4 | -0.14432 | -0.02616 | 0.08832 | 0.10399 |
| 4350_RPA4369_CDS; __4 | -0.14611 | 0.03915 | 0.14795 | 0.11681 |
| 4351_RPA4370_ilvE; __ | -0.31524 | 0.07396 | -0.13040 | -0.03887 |
| 4352_RPA4371_mutL; __ | -0.05104 | 0.03239 | 0.13183 | -0.16379 |
| 4353_RPA4372_CDS; __4 | -0.12645 | -0.02314 | 0.04933 | 0.01599 |
| 4354_RPA4373_CDS; __4 | -0.18653 | 0.03615 | 0.01962 | -0.01198 |
| 4355_RPA4374_CDS; __4 | -0.05993 | -0.01335 | 0.03803 | -0.10180 |
| 4356_RPA4375_CDS; __4 | -0.16140 | 0.02212 | -0.09266 | 0.03298 |
| 4357_RPA4376_lspA; __ | 0.03915 | 0.11739 | -0.04381 | 0.14856 |
| 4358_RPA4377_ileS; __ | -0.24306 | 0.04690 | 0.01248 | 0.00316 |
| 4359_RPA4378_CDS; __4 | -0.26399 | 0.01077 | 0.20603 | 0.09426 |
| 4360_RPA4379_ribF; __ | -0.16674 | 0.03581 | 0.12542 | 0.06825 |
| 4361_RPA4380_CDS; __4 | -0.07362 | 0.05867 | 0.02141 | 0.03339 |
| 4362_RPA4381_CDS; __4 | -0.16843 | -0.06885 | -0.11617 | 0.01213 |
| 4363_RPA4382_CDS; __4 | -0.11437 | 0.05627 | 0.04537 | 0.05496 |
| 4364_RPA4383_CDS; __4 | -0.17351 | -0.02927 | -0.01953 | 0.08921 |
| 4365_RPA4384_CDS; __4 | 0.18380 | 0.10519 | 0.03263 | 0.10667 |
| 4366_RPA4385_PA0781_ | -0.14729 | -0.03335 | 0.01374 | 0.01213 |
| 4367_RPA4386_CDS; __4 | 0.04986 | -0.14838 | -0.03803 | 0.04071 |
| 4368_RPA4387_CDS; __4 | 0.02032 | -0.47224 | -0.06425 | 0.06809 |
| 4369_RPA4388_CDS; __4 | -0.06787 | 0.05386 | 0.06198 | 0.08192 |
| 4370_RPA4389_CDS; __4 | 0.04967 | 0.09029 | 0.00712 | 0.03659 |
| 4371_RPA4390_CDS; __4 | -0.14302 | -0.09392 | 0.21167 | 0.03973 |
| 4372_RPA4391_CDS; __4 | -0.16667 | 0.04836 | 0.08384 | 0.05034 |
| 4373_RPA4392_CDS; __4 | 0.01444 | -0.05060 | 0.18143 | 0.15653 |
| 4374_RPA4393_CDS; __4 | 0.05911 | 0.02094 | -0.05774 | 0.00706 |
| 4375_RPA4394_aceA; __ | -0.30873 | 0.00487 | -0.16219 | -0.07729 |
| 4376_RPA4395_CDS; __4 | -0.12383 | 0.08444 | 0.02511 | 0.03592 |
| 4377_RPA4396_CDS; __4 | -0.01302 | -0.28400 | -0.10861 | 0.08949 |
| 4378_RPA4397_CDS; __4 | -0.32491 | 0.00498 | -0.11327 | 0.02592 |
| 4379_RPA4398_CDS; __4 | -0.02676 | -0.46978 | 0.01202 | -0.06061 |
| 4380_RPA4399_CDS; __4 | 0.17391 | -0.09150 | 0.04187 | -0.01777 |
| 4381_RPA4400_CDS; __4 | -0.18917 | 0.01927 | 0.11538 | 0.03336 |
| 4382_RPA4401_CDS; __4 | -0.14784 | 0.01829 | 0.12595 | 0.04963 |
| 4383_RPA4402_CDS; __4 | -0.19157 | 0.11285 | -0.13836 | 0.08883 |
| 4384_RPA4403_CDS; __4 | -0.24994 | 0.01358 | -0.07799 | -0.04016 |
| 4385_RPA4404_CDS; __4 | -0.24465 | 0.09275 | -0.17103 | -0.07926 |
| 4386_RPA4405_CDS; __4 | -0.04593 | -0.09390 | 0.11052 | 0.03287 |
| 4387_RPA4406_CDS; __4 | -0.17284 | 0.05018 | -0.05437 | -0.04031 |
| 4388_RPA4407_CDS; __4 | -0.17683 | 0.00150 | 0.12952 | -0.04618 |
| 4389_RPA4408_CDS; __4 | -0.13163 | -0.49264 | -0.11752 | 0.06055 |
| 4390_RPA4409_CDS; __4 | -0.16462 | 0.08484 | -0.04530 | 0.02195 |
| 4391_RPA4410_glpD; __ | -0.11945 | 0.05892 | 0.03536 | 0.04586 |
| 4392_RPA4411_glpR; __ | -0.15027 | 0.03059 | 0.03445 | -0.00645 |
| 4393_RPA4412_CDS; __4 | -0.21423 | 0.04808 | 0.06814 | 0.06547 |

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| 4394_RPA4413_CDS;__4 | -0.19854 | 0.02982 | 0.16896 | 0.06762 |
| 4395_RPA4414_CDS;__4 | -0.22015 | 0.01121 | 0.05194 | -0.00262 |
| 4396_RPA4415_CDS;__4 | -0.02151 | 0.12745 | -0.13031 | 0.03723 |
| 4397_RPA4416_CDS;__4 | -0.15276 | 0.03685 | -0.00370 | 0.02655 |
| 4398_RPA4417_CDS;__4 | -0.09803 | 0.05205 | 0.05653 | 0.00254 |
| 4399_RPA4418_CDS;__4 | 0.23799 | 0.18445 | -0.38894 | -0.11025 |
| 4400_RPA4419_ggt;__4 | -0.14572 | -0.03669 | -0.02826 | 0.03073 |
| 4401_RPA4420_CDS;__4 | 0.01595 | -0.04105 | 0.17458 | 0.08666 |
| 4402_RPA4421_CDS;__4 | -0.16921 | -0.07823 | -0.05289 | 0.01947 |
| 4403_RPA4422_crp;__ | -0.01623 | -0.14989 | 0.15805 | -0.06395 |
| 4404_RPA4423_CDS;__4 | -0.06810 | 0.03684 | -0.06648 | -0.15332 |
| 4405_RPA4424_CDS;__4 | -0.02707 | 0.03180 | 0.17317 | -0.01528 |
| 4406_RPA4425_CDS;__4 | -0.10045 | 0.11325 | -0.26172 | -0.14348 |
| 4407_RPA4426_CDS;__4 | -0.30869 | 0.00407 | 0.06551 | 0.04126 |
| 4408_RPA4427_ogt;__4 | -0.02677 | 0.07185 | 0.01043 | -0.04724 |
| 4409_RPA4428_CDS;__4 | -0.12907 | 0.05897 | 0.00116 | 0.02015 |
| 4410_RPA4429_CDS;__4 | 0.07693 | 0.02095 | 0.00519 | 0.04280 |
| 4411_RPA4430_CDS;__4 | -0.02620 | 0.07928 | 0.02062 | 0.04274 |
| 4412_RPA4431_CDS;__4 | -0.08336 | -0.42357 | -0.26642 | 0.03092 |
| 4413_RPA4432_CDS;__5 | -0.16733 | -0.00317 | 0.02333 | 0.01649 |
| 4414_RPA4433_clpB;__ | -0.21133 | 0.06403 | -0.06573 | -0.05648 |
| 4415_RPA4434_CDS;__5 | -0.01896 | -0.05197 | 0.05725 | 0.08232 |
| 4416_RPA4435_CDS;__5 | -0.05622 | -0.43557 | -0.31764 | -0.06965 |
| 4417_RPA4436_CDS;__5 | -0.04941 | -0.07812 | 0.00851 | 0.01126 |
| 4418_RPA4437_metX;__ | -0.15669 | 0.03658 | 0.02358 | -0.06397 |
| 4419_RPA4438_aro;__5 | -0.08406 | 0.07387 | -0.02248 | 0.03638 |
| 4420_RPA4439_hisC;__ | -0.24269 | 0.05442 | -0.01918 | -0.01298 |
| 4421_RPA4440_tyrC;__ | -0.17065 | 0.09703 | -0.11057 | 0.03225 |
| 4422_RPA4441_corA;__ | -0.24029 | 0.05102 | 0.01375 | 0.00638 |
| 4423_RPA4442_CDS;__5 | -0.21396 | 0.06207 | -0.05947 | 0.02263 |
| 4424_RPA4443_CDS;__5 | -0.22006 | -0.04251 | 0.02482 | 0.06432 |
| 4425_RPA4444_CDS;__5 | -0.04638 | -0.02870 | 0.05546 | 0.10120 |
| 4426_RPA4445_CDS;__5 | 0.15506 | 0.11740 | -0.01346 | 0.00886 |
| 4427_RPA4446_CDS;__5 | 0.07151 | -0.45097 | -0.22234 | -0.02161 |
| 4428_RPA4447_CDS;__5 | -0.05244 | 0.00107 | 0.27703 | -0.04779 |
| 4429_RPA4448_CDS;__5 | 0.06437 | 0.02890 | 0.13516 | -0.04160 |
| 4430_RPA4449_CDS;__5 | -0.10026 | 0.01426 | -0.06613 | 0.03878 |
| 4431_RPA4450_CDS;__5 | -0.01851 | 0.03915 | 0.03149 | 0.07063 |
| 4432_RPA4451_CDS;__5 | -0.23121 | 0.06214 | 0.06192 | 0.08573 |
| 4433_RPA4452_CDS;__5 | -0.09903 | 0.08396 | -0.03910 | 0.04619 |
| 4434_RPA4453_CDS;__5 | -0.14801 | -0.14068 | 0.07303 | 0.02937 |
| 4435_RPA4454_CDS;__5 | 0.11649 | 0.05948 | 0.13382 | -0.07012 |
| 4436_RPA4455_CDS;__5 | 0.01210 | -0.16467 | -0.04571 | 0.14836 |
| 4437_RPA4456_CDS;__5 | 0.04999 | 0.00309 | 0.08914 | 0.08918 |
| 4438_RPA4457_CDS;__5 | -0.22688 | 0.07652 | -0.09562 | 0.00267 |
| 4439_RPA4458_CDS;__5 | -0.05278 | -0.04370 | 0.21375 | 0.17670 |
| 4440_RPA4459_dhsU;__ | -0.01336 | -0.21162 | -0.01226 | 0.08871 |
| 4441_RPA4460_dhsU;__ | -0.10539 | 0.07971 | -0.05885 | 0.02538 |
| 4442_RPA4461_CDS;__5 | 0.11458 | -0.07279 | 0.12825 | -0.05727 |
| 4443_RPA4462_CDS;__5 | -0.02743 | 0.08710 | -0.04377 | 0.02442 |
| 4444_RPA4463_CDS;__5 | -0.10556 | 0.08966 | -0.12773 | -0.02313 |
| 4445_RPA4464_soxC;__ | -0.14379 | 0.07521 | 0.00556 | -0.04634 |
| 4446_RPA4465_soxB;__ | -0.22989 | 0.04554 | 0.01715 | 0.02699 |
| 4447_RPA4466_soxZ;__ | -0.31654 | 0.04001 | -0.22343 | 0.08140 |
| 4448_RPA4467_soxY;__ | -0.27453 | 0.03701 | 0.03459 | -0.01705 |
| 4449_RPA4468_CDS;__5 | -0.02995 | 0.04855 | -0.08384 | 0.04168 |
| 4450_RPA4469_CDS;__5 | -0.22123 | 0.06418 | -0.00208 | 0.03887 |

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| 4451_RPA4470_CDS;__5 | -0.01086 | 0.13404 | -0.00462 | -0.02251 |
| 4452_RPA4471_CDS;__5 | 0.06884 | 0.09774 | 0.01164 | 0.03831 |
| 4453_RPA4472_CDS;__5 | -0.04096 | 0.00396 | 0.18138 | 0.10654 |
| 4454_RPA4473_CDS;__5 | 0.35025 | 0.10559 | 0.32932 | -1.34063 |
| 4455_RPA4474_CDS;__5 | -0.12444 | 0.08251 | -0.06521 | -0.03071 |
| 4456_RPA4475_CDS;__5 | 0.06934 | -0.02694 | -0.04261 | 0.03668 |
| 4457_RPA4476_CDS;__5 | 0.22319 | 0.09433 | 0.06236 | -0.20696 |
| 4458_RPA4477_CDS;__5 | -0.16131 | 0.05629 | -0.00839 | -0.05118 |
| 4459_RPA4478_CDS;__5 | -0.21243 | -0.04162 | -0.00378 | -0.03822 |
| 4460_RPA4479_czcA;__ | -0.12075 | -0.05950 | 0.04069 | -0.01338 |
| 4461_RPA4480_czcB;__ | -0.04357 | 0.03330 | 0.15945 | -0.03635 |
| 4462_RPA4481_CDS;__5 | -0.02332 | -0.20653 | -0.01086 | -0.06037 |
| 4463_RPA4482_CDS;__5 | -0.07477 | 0.10440 | -0.03605 | -0.00664 |
| 4464_RPA4483_CDS;__5 | -0.07204 | 0.07638 | 0.00860 | 0.00341 |
| 4465_RPA4484_CDS;__5 | 0.05588 | 0.14516 | -0.06456 | 0.09398 |
| 4466_RPA4485_mutY;__ | -0.13149 | 0.01206 | 0.18011 | 0.08475 |
| 4467_RPA4486_CDS;__5 | -0.06272 | -0.02088 | 0.10420 | 0.17076 |
| 4468_RPA4487_CDS;__5 | -0.27446 | 0.08943 | -0.07143 | 0.02686 |
| 4469_RPA4488_CDS;__5 | 0.32540 | 0.04445 | 0.16574 | 0.09826 |
| 4470_RPA4489_CDS;__5 | -0.25243 | 0.06751 | -0.02441 | 0.06086 |
| 4471_RPA4490_CDS;__5 | 0.01827 | -0.06964 | 0.12318 | 0.10142 |
| 4472_RPA4491_CDS;__5 | -0.08262 | -0.29891 | -0.06321 | -0.03487 |
| 4473_RPA4492_apr;__5 | -0.29670 | 0.02672 | 0.07097 | 0.02873 |
| 4474_RPA4493_CDS;__5 | -0.22431 | -0.49484 | -0.20814 | 0.03763 |
| 4475_RPA4494_CDS;__5 | -0.27940 | -0.02811 | -0.01644 | 0.03686 |
| 4476_RPA4495_htpX;__ | -0.16441 | 0.01674 | 0.10332 | 0.06724 |
| 4477_RPA4498_trpG;__ | -0.21212 | 0.07792 | -0.03427 | 0.04058 |
| 4478_RPA4499_CDS;__5 | 0.68761 | 0.12792 | -0.05248 | -0.14574 |
| 4479_RPA4500_CDS;__5 | 0.37905 | -0.45158 | 0.13400 | 0.15451 |
| 4480_RPA4501_CDS;__5 | -0.24733 | 0.08855 | 0.01681 | 0.07391 |
| 4481_RPA4502_CDS;__5 | -0.19525 | 0.08483 | -0.04455 | -0.09532 |
| 4482_RPA4503_CDS;__5 | 0.03799 | -0.04139 | -0.24580 | 0.03130 |
| 4483_RPA4504_CDS;__5 | -0.17147 | 0.02228 | -0.04739 | 0.01122 |
| 4484_RPA4505_CDS;__5 | 0.07522 | -0.04287 | 0.14155 | -0.19461 |
| 4485_RPA4506_CDS;__5 | -0.10960 | 0.06779 | 0.05069 | -0.01915 |
| 4486_RPA4507_CDS;__5 | -0.09021 | -0.15351 | 0.09550 | 0.10260 |
| 4487_RPA4508_CDS;__5 | 0.14666 | -0.05251 | 0.06887 | 0.09180 |
| 4488_RPA4509_CDS;__5 | -0.24234 | 0.03210 | 0.05154 | 0.02224 |
| 4489_RPA4510_CDS;__5 | -0.13653 | 0.08103 | -0.15566 | 0.16953 |
| 4490_RPA4511_CDS;__5 | -0.05000 | -0.19967 | 0.02668 | 0.08748 |
| 4491_RPA4512_CDS;__5 | -0.00755 | -0.11506 | 0.38263 | 0.05095 |
| 4492_RPA4513_CDS;__5 | 0.17449 | -0.03530 | 0.19111 | -0.04287 |
| 4493_RPA4514_CDS;__5 | 0.00042 | 0.08316 | 0.05651 | 0.03321 |
| 4494_RPA4515_CDS;__5 | -0.08235 | -0.01199 | 0.02850 | 0.06405 |
| 4495_RPA4516_vieA;__ | -0.06094 | -0.10976 | 0.09774 | 0.00919 |
| 4496_RPA4517_CDS;__5 | -0.11058 | -0.01411 | -0.04690 | 0.06462 |
| 4497_RPA4518_CDS;__5 | 0.02777 | -0.43137 | -0.10672 | 0.14336 |
| 4498_RPA4519_CDS;__5 | -0.20893 | -0.03018 | -0.02874 | -0.07271 |
| 4499_RPA4520_CDS;__5 | -0.03828 | 0.06393 | 0.08415 | -0.04443 |
| 4500_RPA4521_CDS;__5 | -0.30776 | -0.00180 | 0.13460 | 0.07317 |
| 4501_RPA4522_cbbY;__ | -0.01062 | 0.10174 | -0.02547 | 0.03109 |
| 4502_RPA4523_CDS;__5 | 0.14106 | -0.24978 | 0.48946 | -0.13904 |
| 4503_RPA4524_CDS;__5 | -0.09623 | -0.09028 | 0.02765 | 0.06266 |
| 4504_RPA4525_CDS;__5 | 0.43728 | -0.01314 | 0.10687 | 0.13026 |
| 4505_RPA4526_CDS;__5 | 0.87306 | 0.08240 | 0.02151 | -0.06147 |
| 4506_RPA4527_maf;__5 | -0.11608 | -0.17376 | -0.19026 | 0.03842 |
| 4507_RPA4528_CDS;__5 | 0.00249 | -0.04178 | 0.02985 | -0.01110 |

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| 4508_RPA4529_arsC;__ | -0.26354 | 0.07611 | -0.03662 | 0.03538 |
| 4509_RPA4530_CDS;__5 | -0.21046 | 0.03270 | 0.07649 | 0.06212 |
| 4510_RPA4531_hisD;__ | -0.07684 | 0.05440 | 0.02051 | -0.06890 |
| 4511_RPA4532_CDS;__5 | -0.07337 | 0.08129 | -0.03844 | 0.04944 |
| 4512_RPA4533_murA;__ | -0.24805 | 0.04226 | -0.00401 | -0.01131 |
| 4513_RPA4534_CDS;__5 | 0.31284 | 0.01243 | 0.09536 | 0.04059 |
| 4514_RPA4535_CDS;__5 | 0.08639 | 0.11362 | -0.24816 | 0.08594 |
| 4515_RPA4536_CDS;__5 | -0.05001 | 0.03035 | 0.10980 | 0.02088 |
| 4516_RPA4537_CDS;__5 | 0.04019 | -0.09789 | 0.02809 | 0.13554 |
| 4517_RPA4538_CDS;__5 | 0.20483 | 0.06369 | -0.14640 | 0.04441 |
| 4518_RPA4539_CDS;__5 | 0.40499 | 0.08810 | 0.18825 | -0.15043 |
| 4519_RPA4540_CDS;__5 | 0.53669 | 0.13478 | -0.16835 | 0.05796 |
| 4520_RPA4541_rlgA;__ | 0.42922 | 0.14531 | 0.02040 | 0.10603 |
| 4521_RPA4542_CDS;__5 | 0.64388 | 0.13152 | -0.14088 | 0.07107 |
| 4522_RPA4543_CDS;__5 | 0.46750 | 0.09014 | 0.14993 | 0.14431 |
| 4523_RPA4544_CDS;__5 | 0.21805 | 0.04996 | 0.18801 | 0.12852 |
| 4524_RPA4545_CDS;__5 | 1.00880 | 0.14976 | 0.40829 | -0.63727 |
| 4525_RPA4546_CDS;__5 | 0.23579 | 0.15549 | -0.07240 | 0.03802 |
| 4526_RPA4547_CDS;__5 | 0.61875 | 0.06470 | -0.02769 | 0.01976 |
| 4527_RPA4548_CDS;__5 | 0.66742 | 0.20296 | -0.12476 | 0.09437 |
| 4528_RPA4549_CDS;__5 | 0.18041 | 0.09287 | 0.02057 | 0.07200 |
| 4529_RPA4550_CDS;__5 | 0.16492 | -0.02688 | 0.06079 | 0.04723 |
| 4530_RPA4551_CDS;__5 | -0.19652 | 0.03246 | 0.08476 | 0.00993 |
| 4531_RPA4552_CDS;__5 | -0.07924 | 0.01964 | 0.12273 | 0.02219 |
| 4532_RPA4553_CDS;__5 | -0.20939 | 0.07585 | -0.03606 | 0.06288 |
| 4533_RPA4554_dctM;__ | -0.14022 | 0.07604 | -0.09084 | -0.05696 |
| 4534_RPA4555_CDS;__5 | -0.07159 | 0.08072 | -0.00569 | -0.19065 |
| 4535_RPA4556_CDS;__5 | -0.10870 | -0.21189 | -0.02675 | 0.08967 |
| 4536_RPA4557_CDS;__5 | -0.09128 | 0.07164 | 0.02424 | 0.01250 |
| 4537_RPA4558_CDS;__5 | -0.13221 | 0.06776 | 0.02263 | 0.04377 |
| 4538_RPA4559_CDS;__5 | -0.04049 | 0.06867 | 0.05790 | -0.05389 |
| 4539_RPA4560_iclR;__ | 0.00049 | 0.08371 | -0.00690 | 0.05723 |
| 4540_RPA4561_CDS;__5 | -0.14910 | -0.24024 | -0.07680 | -0.01735 |
| 4541_RPA4562_apbA/pa | -0.06241 | -0.07756 | 0.12608 | -0.00046 |
| 4542_RPA4563_exoI;__ | -0.14055 | 0.06025 | 0.10562 | -0.10874 |
| 4543_RPA4564_CDS;__5 | -0.03972 | 0.07104 | 0.01913 | -0.06525 |
| 4544_RPA4565_CDS;__5 | 0.05275 | -0.15615 | -0.01180 | 0.06243 |
| 4545_RPA4566_ackA;__ | -0.01034 | -0.11229 | 0.06057 | -0.04583 |
| 4546_RPA4567_pta;__ | -0.03018 | 0.06525 | 0.01486 | -0.17400 |
| 4547_RPA4568_CDS;__5 | -0.08742 | -0.12539 | -0.03990 | 0.00875 |
| 4548_RPA4569_CDS;__5 | 0.04081 | 0.05153 | 0.16875 | -0.21804 |
| 4549_RPA4570_CDS;__5 | -0.07582 | 0.07169 | 0.02091 | 0.07508 |
| 4550_RPA4571_CDS;__5 | 0.19426 | 0.12169 | -0.14328 | -0.10522 |
| 4551_RPA4572_htrA/de | -0.06953 | 0.00323 | -0.09685 | -0.14086 |
| 4552_RPA4573_CDS;__5 | -0.10511 | -0.19301 | -0.21995 | -0.08463 |
| 4553_RPA4574_CDS;__5 | 0.32721 | -0.07311 | -0.47181 | 0.01797 |
| 4554_RPA4575_CDS;__5 | 0.01013 | 0.07547 | 0.08702 | 0.04509 |
| 4555_RPA4576_CDS;__5 | 0.03749 | 0.01374 | 0.21032 | 0.10650 |
| 4556_RPA4577_CDS;__5 | -0.01224 | -0.11867 | 0.05159 | 0.00977 |
| 4557_RPA4578_CDS;__5 | -0.28644 | 0.07087 | -0.04813 | 0.04390 |
| 4558_RPA4579_CDS;__5 | 0.11824 | 0.08493 | 0.05700 | -0.05112 |
| 4559_RPA4580_CDS;__5 | 0.04611 | -0.19713 | -0.05251 | 0.05968 |
| 4560_RPA4581_CDS;__5 | 0.13428 | -0.49979 | 0.03074 | 0.05500 |
| 4561_RPA4582_galE;__ | -0.07219 | -0.08943 | -0.06840 | 0.10155 |
| 4562_RPA4583_CDS;__5 | -0.01731 | -0.11715 | -0.04864 | 0.06784 |
| 4563_RPA4584_CDS;__5 | 0.12816 | 0.05010 | 0.14661 | -0.10384 |
| 4564_RPA4585_CDS;__5 | 0.01869 | 0.00174 | -0.04234 | -0.20002 |

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| 4565_RPA4586_CDS;__5 | 0.31686 | 0.15077 | -0.06904 | 0.03268 |
| 4566_RPA4587_CDS;__5 | 0.10285 | -0.14089 | -0.02888 | 0.11892 |
| 4567_RPA4588_CDS;__5 | 0.26546 | 0.08282 | 0.08446 | -0.31063 |
| 4568_RPA4589_CDS;__5 | 0.01525 | -0.00065 | 0.09578 | 0.01802 |
| 4569_RPA4590_CDS;__5 | 0.25937 | -0.11270 | -0.10120 | 0.03248 |
| 4570_RPA4591_metY;__ | -0.05843 | 0.06375 | -0.03397 | -0.05516 |
| 4571_RPA4592_CDS;__5 | 0.10580 | -0.04294 | 0.10676 | 0.07145 |
| 4572_RPA4593_CDS;__5 | -0.00667 | -0.07694 | 0.12924 | -0.08590 |
| 4573_RPA4594_CDS;__5 | 0.13617 | -0.02072 | -0.10186 | -0.15810 |
| 4574_RPA4595_CDS;__5 | 0.07417 | -0.15102 | -0.20116 | -0.01421 |
| 4575_RPA4596_fabG;__ | -0.09790 | 0.02061 | -0.07566 | -0.12506 |
| 4576_RPA4597_CDS;__5 | -0.06676 | -0.03336 | 0.08970 | -0.03333 |
| 4577_RPA4598_CDS;__5 | -0.09142 | 0.06569 | -0.00192 | -0.07578 |
| 4578_RPA4599_CDS;__5 | 0.02653 | 0.05398 | -0.33864 | -0.15843 |
| 4579_RPA4600_CDS;__5 | -0.14396 | 0.05367 | 0.02744 | 0.04970 |
| 4580_RPA4601_CDS;__5 | -0.01762 | 0.12121 | -0.07875 | 0.05461 |
| 4581_RPA4602_fixX;__ | -0.04925 | 0.06222 | 0.21962 | -0.34492 |
| 4582_RPA4603_fixC;__ | -0.22436 | -0.20869 | -0.16619 | -0.00898 |
| 4583_RPA4604_fixB;__ | -0.13159 | -0.02284 | -0.19734 | -0.00661 |
| 4584_RPA4605_fixA;__ | -0.19801 | -0.08740 | -0.00566 | 0.06261 |
| 4585_RPA4606_nifW;__ | 0.06827 | -0.43274 | -0.07379 | -0.05992 |
| 4586_RPA4607_nifV;__ | 0.02006 | 0.10706 | -0.06663 | -0.04790 |
| 4587_RPA4608_nifS;__ | -0.03621 | -0.05758 | -0.11751 | -0.08021 |
| 4588_RPA4609_nifU;__ | 0.01617 | 0.02857 | -0.05687 | -0.03212 |
| 4589_RPA4610_CDS;__5 | -0.04111 | -0.11457 | -0.07338 | 0.06497 |
| 4590_RPA4611_nifQ;__ | -0.13360 | -0.00643 | -0.09460 | -0.11281 |
| 4591_RPA4612_fdxB;__ | -0.35969 | -0.02886 | -0.11742 | 0.01671 |
| 4592_RPA4613_CDS;__5 | -0.13134 | 0.01487 | -0.03572 | 0.23529 |
| 4593_RPA4614_CDS;__5 | -0.17853 | 0.02932 | -0.12644 | -0.05376 |
| 4594_RPA4615_nifX;__ | -0.13229 | 0.14920 | -0.14850 | 0.11248 |
| 4595_RPA4616_nifN;__ | -0.07304 | 0.03726 | 0.11840 | -0.09283 |
| 4596_RPA4617_nifE;__ | -0.18380 | -0.01761 | -0.11314 | 0.03942 |
| 4597_RPA4618_nifK;__ | -0.30660 | 0.08578 | -0.14940 | -0.05030 |
| 4598_RPA4619_nifD;__ | -0.26078 | 0.10521 | -0.20772 | -0.07078 |
| 4599_RPA4620_nifH;__ | -0.24505 | -0.00545 | -0.14297 | 0.03012 |
| 4600_RPA4621_CDS;__5 | 0.00840 | -0.21919 | 0.05714 | 0.02472 |
| 4601_RPA4622_CDS;__5 | 0.26399 | 0.12411 | 0.07788 | 0.28356 |
| 4602_RPA4623_fixU,_n | -0.27379 | -0.04460 | -0.09203 | -0.05194 |
| 4603_RPA4624_CDS;__5 | -0.08175 | 0.03881 | 0.28736 | 0.16105 |
| 4604_RPA4625_nifZ;__ | -0.23214 | 0.01656 | -0.25951 | -0.24044 |
| 4605_RPA4626_CDS;__5 | 0.00582 | -0.11318 | 0.13815 | 0.05346 |
| 4606_RPA4627_CDS;__5 | 0.11323 | 0.05071 | 0.20884 | 0.11393 |
| 4607_RPA4628_hesB;__ | -0.15691 | -0.14217 | 0.00036 | -0.00176 |
| 4608_RPA4629_ferN;__ | -0.29733 | 0.03830 | -0.19176 | 0.03800 |
| 4609_RPA4630_nifB;__ | -0.22004 | 0.07368 | -0.03584 | -0.01535 |
| 4610_RPA4631_fer1;__ | -0.22722 | 0.08084 | -0.26512 | -0.02551 |
| 4611_RPA4632_nifA;__ | -0.11915 | -0.05215 | -0.00918 | 0.01596 |
| 4612_RPA4633_fixR;__ | -0.08383 | -0.07784 | 0.01425 | 0.01605 |
| 4613_RPA4634_CDS;__5 | -0.02035 | -0.22465 | 0.03809 | 0.06304 |
| 4614_RPA4635_feoB;__ | -0.16811 | -0.04875 | -0.02451 | -0.04319 |
| 4615_RPA4636_CDS;__5 | -0.14796 | -0.08307 | 0.13572 | -0.01656 |
| 4616_RPA4637_CDS;__5 | -0.10125 | 0.12907 | -0.27013 | -0.10780 |
| 4617_RPA4638_CDS;__5 | 0.00822 | -0.00529 | -0.00391 | -0.06311 |
| 4618_RPA4639_CDS;__5 | -0.03072 | 0.02168 | -0.12466 | -0.07723 |
| 4619_RPA4640_CDS;__5 | 0.20970 | 0.01951 | 0.06930 | -0.27618 |
| 4620_RPA4641_cbbM;__ | -0.35507 | 0.10136 | -0.18579 | -0.03889 |
| 4621_RPA4642_cbbA;__ | -0.33926 | -0.06052 | -0.16289 | -0.01815 |

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|-----------------------|----------|----------|----------|----------|
| 4622_RPA4643_cbbT1;__ | -0.31157 | 0.07500 | -0.16463 | -0.06718 |
| 4623_RPA4644_cbbP;__ | -0.24949 | 0.00961 | -0.11294 | 0.01376 |
| 4624_RPA4645_cbbF;__ | -0.15803 | 0.06724 | -0.06737 | -0.07611 |
| 4625_RPA4646_CDS;__5 | -0.14409 | 0.03041 | 0.13929 | 0.03538 |
| 4626_RPA4647_CDS;__5 | -0.09121 | 0.08360 | -0.02187 | 0.04586 |
| 4627_RPA4648_CDS;__5 | -0.07718 | 0.13066 | -0.11464 | 0.06880 |
| 4628_RPA4649_CDS;__5 | -0.12875 | 0.00601 | 0.11739 | -0.02389 |
| 4629_RPA4650_potA;__ | -0.10397 | 0.05884 | 0.04975 | 0.02434 |
| 4630_RPA4651_CDS;__5 | 0.10053 | 0.08901 | 0.12470 | -0.11295 |
| 4631_RPA4652_CDS;__5 | -0.15208 | 0.08442 | -0.04057 | -0.09743 |
| 4632_RPA4653_bisC;__ | -0.08671 | -0.06478 | 0.02651 | -0.00712 |
| 4633_RPA4654_CDS;__5 | -0.19037 | 0.06615 | 0.06706 | 0.06685 |
| 4634_RPA4655_fucA;__ | 0.00729 | 0.13571 | -0.09112 | 0.12133 |
| 4635_RPA4656_CDS;__5 | -0.13556 | 0.09653 | -0.09752 | 0.01689 |
| 4636_RPA4657_kduD;__ | -0.13492 | 0.10632 | -0.09387 | 0.00075 |
| 4637_RPA4658_CDS;__5 | -0.08277 | 0.03297 | 0.06921 | -0.00568 |
| 4638_RPA4659_CDS;__5 | 0.29725 | 0.06692 | 0.18233 | 0.08347 |
| 4639_RPA4660_otsA;__ | 0.02138 | 0.05053 | 0.08791 | -0.08964 |
| 4640_RPA4661_otsB;__ | 0.38406 | -0.14162 | -0.12662 | 0.04367 |
| 4641_RPA4662_CDS;__5 | 0.08425 | 0.08461 | 0.06095 | -0.16261 |
| 4642_RPA4663_CDS;__5 | -0.06736 | 0.06757 | 0.06195 | -0.05840 |
| 4643_RPA4664_CDS;__5 | 0.36955 | 0.09646 | 0.14553 | -0.14261 |
| 4644_RPA4665_leuA;__ | -0.03511 | 0.08341 | -0.00340 | 0.07323 |
| 4645_RPA4666_coxS;__c | -0.18125 | 0.09925 | -0.10994 | 0.00601 |
| 4646_RPA4667_coxL;__c | -0.21220 | -0.01405 | -0.04585 | 0.02525 |
| 4647_RPA4668_coxM;__c | -0.27516 | -0.02705 | -0.06457 | 0.01921 |
| 4648_RPA4669_CDS;__5 | -0.28271 | 0.07654 | -0.08505 | 0.01525 |
| 4649_RPA4670_fahA;__ | -0.12853 | 0.02011 | 0.13806 | -0.00266 |
| 4650_RPA4671_maiA;__ | -0.02817 | 0.06088 | 0.04443 | 0.06168 |
| 4651_RPA4672_hmgA;__ | -0.20020 | 0.05233 | -0.02760 | -0.01465 |
| 4652_RPA4673_cphA1;__ | -0.20266 | -0.10556 | 0.00664 | 0.05455 |
| 4653_RPA4674_CDS;__5 | 0.06258 | -0.05240 | 0.23644 | 0.09396 |
| 4654_RPA4675_CDS;__5 | -0.04986 | -0.12166 | 0.11850 | -0.04746 |
| 4655_RPA4676_CDS;__5 | 0.06855 | 0.05539 | 0.05973 | -0.08925 |
| 4656_RPA4677_CDS;__5 | 0.04024 | 0.04100 | 0.20010 | -0.08330 |
| 4657_RPA4678_CDS;__5 | -0.06136 | 0.00885 | 0.04322 | -0.01004 |
| 4658_RPA4679_CDS;__5 | -0.03253 | -0.08944 | -0.05116 | 0.01738 |
| 4659_RPA4680_CDS;__5 | -0.20780 | -0.05003 | 0.03482 | 0.00823 |
| 4660_RPA4681_CDS;__5 | 0.04966 | 0.00173 | 0.09889 | -0.07736 |
| 4661_RPA4682_CDS;__5 | 0.03901 | 0.13408 | -0.06299 | 0.05916 |
| 4662_RPA4683_CDS;__5 | 0.17816 | 0.18999 | -0.22644 | 0.10120 |
| 4663_RPA4684_CDS;__5 | -0.06512 | 0.05559 | 0.07586 | 0.11233 |
| 4664_RPA4685_lysS;__ | -0.24097 | 0.01567 | 0.06988 | -0.01176 |
| 4665_RPA4686_CDS;__5 | -0.18369 | -0.00119 | 0.13604 | 0.03019 |
| 4666_RPA4687_CDS;__5 | 0.06031 | -0.00168 | 0.16289 | 0.05012 |
| 4667_RPA4688_CDS;__5 | -0.15146 | 0.05199 | -0.02422 | -0.03564 |
| 4668_RPA4689_CDS;__5 | -0.05185 | -0.03595 | -0.08547 | 0.07103 |
| 4669_RPA4690_CDS;__5 | 0.79807 | 0.19775 | 0.17091 | -0.04447 |
| 4670_RPA4691_CDS;__5 | -0.03602 | 0.08599 | 0.01318 | 0.04070 |
| 4671_RPA4692_CDS;__5 | 0.08935 | 0.13523 | -0.39275 | 0.02356 |
| 4672_RPA4693_CDS;__5 | -0.12088 | 0.02166 | 0.08260 | -0.04608 |
| 4673_RPA4694_CDS;__5 | 0.09048 | -0.00277 | 0.08534 | 0.13783 |
| 4674_RPA4695_ligR;__ | -0.13252 | 0.02691 | 0.13384 | 0.04842 |
| 4675_RPA4696_FldA;__ | -0.14419 | 0.04270 | 0.06517 | 0.06816 |
| 4676_RPA4697_ligJ;__ | -0.28157 | -0.02970 | -0.00135 | 0.03508 |
| 4677_RPA4698_FldZ;__ | -0.15010 | 0.07452 | -0.01859 | 0.09082 |
| 4678_RPA4699_FldX;__ | -0.06384 | 0.07425 | 0.08555 | 0.01549 |

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| 4679_RPA4700_ligI;__ | -0.14637 | 0.07611 | 0.02060 | 0.12489 |
| 4680_RPA4701_ligA;__ | -0.23304 | 0.05769 | -0.05554 | -0.07819 |
| 4681_RPA4702_ligB;__ | -0.20513 | 0.08285 | -0.01306 | -0.10746 |
| 4682_RPA4703_ligC;__ | -0.26190 | -0.01791 | -0.09459 | 0.02403 |
| 4683_RPA4704_CDS;__5 | 0.05349 | 0.04018 | -0.05673 | 0.02514 |
| 4684_RPA4705_hisE;__ | -0.03437 | -0.04031 | -0.00359 | 0.00150 |
| 4685_RPA4706_CDS;__5 | -0.17583 | 0.07025 | -0.01660 | 0.07969 |
| 4686_RPA4707_CDS;__5 | 0.18085 | -0.03503 | 0.12809 | 0.04463 |
| 4687_RPA4708_CDS;__5 | -0.14429 | -0.14635 | -0.30198 | -0.04307 |
| 4688_RPA4709_CDS;__5 | -0.12125 | 0.06913 | -0.06684 | -0.01953 |
| 4689_RPA4710_CDS;__5 | -0.09918 | 0.08578 | -0.06496 | 0.02625 |
| 4690_RPA4711_CDS;__5 | 0.06989 | 0.09265 | -0.02380 | -0.13514 |
| 4691_RPA4712_CDS;__5 | -0.00171 | 0.03528 | 0.09458 | -0.02379 |
| 4692_RPA4713_CDS;__5 | 0.15256 | 0.02038 | 0.14670 | 0.11965 |
| 4693_RPA4714_CDS;__5 | -0.15503 | 0.01351 | 0.08830 | -0.14860 |
| 4694_RPA4715_modC;__ | 0.07301 | -0.16155 | 0.15553 | 0.03137 |
| 4695_RPA4716_modB;__ | -0.02697 | -0.08935 | 0.06537 | -0.03299 |
| 4696_RPA4717_modA;__ | -0.25909 | 0.05921 | -0.04358 | -0.00708 |
| 4697_RPA4718_mopA/mo | -0.15840 | 0.08911 | 0.03341 | 0.06526 |
| 4698_RPA4719_CDS;__5 | -0.27977 | 0.00759 | -0.11324 | 0.04194 |
| 4699_RPA4720_CDS;__5 | -0.04734 | 0.04596 | 0.11307 | 0.04733 |
| 4700_RPA4721_CDS;__5 | -0.23830 | 0.01725 | -0.10108 | 0.00704 |
| 4701_RPA4722_CDS;__5 | -0.28061 | 0.02483 | -0.02957 | 0.04358 |
| 4702_RPA4723_polA;__ | -0.16437 | 0.05867 | 0.02932 | 0.03802 |
| 4703_RPA4724_pyrE;__ | -0.22124 | 0.06547 | -0.01395 | 0.06845 |
| 4704_RPA4725_CDS;__5 | -0.15333 | 0.06947 | 0.03520 | -0.09444 |
| 4705_RPA4726_CDS;__5 | -0.07210 | -0.04038 | -0.18246 | 0.13639 |
| 4706_RPA4727_glgA;__ | -0.23030 | 0.06264 | 0.02476 | 0.07293 |
| 4707_RPA4728_CDS;__5 | -0.19111 | 0.03151 | 0.09506 | 0.01564 |
| 4708_RPA4729_rocF;__ | -0.24502 | 0.02190 | 0.10142 | 0.04565 |
| 4709_RPA4730_CDS;__5 | -0.30568 | 0.06311 | 0.00867 | 0.04488 |
| 4710_RPA4731_CDS;__5 | -0.16202 | 0.03610 | 0.07532 | -0.05889 |
| 4711_RPA4732_CDS;__5 | -0.15907 | 0.06475 | 0.03689 | 0.10274 |
| 4712_RPA4733_plsC;__ | -0.24084 | 0.03911 | 0.09676 | 0.02619 |
| 4713_RPA4734_CDS;__5 | 0.00261 | 0.09966 | -0.05253 | -0.06406 |
| 4714_RPA4735_CDS;__5 | 0.96653 | 0.22350 | -0.47292 | -0.46814 |
| 4715_RPA4736_ftsE;__ | -0.20295 | -0.06517 | -0.01031 | -0.02873 |
| 4716_RPA4737_CDS;__5 | 0.01688 | -0.22498 | 0.07085 | 0.12278 |
| 4717_RPA4738_CDS;__5 | -0.18251 | 0.01262 | -0.01503 | -0.36565 |
| 4718_RPA4739_CDS;__5 | -0.16985 | -0.02094 | 0.01272 | 0.03494 |
| 4719_RPA4740_pcaC;__ | -0.24119 | 0.04882 | 0.15406 | 0.03168 |
| 4720_RPA4741_lysA;__ | -0.20119 | -0.03375 | -0.04193 | 0.03356 |
| 4721_RPA4742_CDS;__5 | 0.24273 | 0.11593 | 0.04800 | 0.09254 |
| 4722_RPA4743_argH;__ | -0.21223 | 0.03157 | 0.05294 | -0.02733 |
| 4723_RPA4744_CDS;__5 | -0.09052 | 0.06955 | 0.05513 | 0.05357 |
| 4724_RPA4745_CDS;__5 | 0.17743 | 0.11726 | -0.03046 | -0.33511 |
| 4725_RPA4746_CDS;__5 | -0.01540 | 0.06749 | 0.09365 | 0.00084 |
| 4726_RPA4747_CDS;__5 | -0.04765 | 0.01129 | 0.21911 | 0.10223 |
| 4727_RPA4748_hbdA;__ | -0.15834 | -0.01244 | -0.21621 | 0.03970 |
| 4728_RPA4749_etfA;__ | -0.19041 | 0.10152 | -0.18760 | -0.11063 |
| 4729_RPA4750_etfB;__ | -0.31579 | 0.04483 | -0.32147 | -0.12885 |
| 4730_RPA4751_CDS;__5 | -0.01761 | 0.08961 | -0.05030 | 0.02146 |
| 4731_RPA4752_rbn;__5 | -0.02615 | -0.06835 | 0.16555 | 0.13458 |
| 4732_RPA4753_CDS;__5 | -0.06602 | 0.03421 | 0.09795 | 0.06349 |
| 4733_RPA4754_CDS;__5 | -0.01926 | -0.01426 | 0.20048 | 0.05544 |
| 4734_RPA4755_CDS;__5 | 0.11181 | 0.06817 | 0.10053 | 0.15581 |
| 4735_RPA4756_CDS;__5 | 0.04538 | -0.17877 | -0.07045 | 0.15561 |

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| 4736_RPA4757_CDS;__5 | -0.05413 | -0.19466 | -0.02522 | 0.01852 |
| 4737_RPA4758_CDS;__5 | -0.06638 | 0.05949 | -0.16783 | -0.28648 |
| 4738_RPA4759_CDS;__5 | -0.06180 | -0.00042 | 0.16456 | 0.05097 |
| 4739_RPA4760_CDS;__5 | -0.26170 | -0.02599 | -0.13086 | -0.11339 |
| 4740_RPA4761_CDS;__5 | 0.55709 | 0.10770 | -0.08369 | -0.04325 |
| 4741_RPA4762_ogt;__5 | -0.02926 | 0.07478 | 0.08030 | 0.07534 |
| 4742_RPA4763_CDS;__5 | -0.10879 | -0.00543 | 0.17564 | 0.09865 |
| 4743_RPA4764_CDS;__5 | -0.11316 | 0.08044 | -0.00402 | 0.06972 |
| 4744_RPA4765_CDS;__5 | -0.23503 | 0.03212 | 0.09531 | 0.07667 |
| 4745_RPA4766_metZ;__5 | -0.15613 | -0.12852 | -0.03605 | 0.03676 |
| 4746_RPA4767_CDS;__5 | -0.12377 | 0.08460 | -0.03471 | 0.06162 |
| 4747_RPA4768_CDS;__5 | 0.05925 | -0.19136 | -0.00393 | 0.02727 |
| 4748_RPA4769_opgC;__ | -0.01255 | -0.11523 | 0.11172 | 0.08657 |
| 4749_RPA4770_apaG;__ | -0.17608 | -0.01484 | -0.00363 | 0.07416 |
| 4750_RPA4771_CDS;__5 | -0.21270 | 0.05538 | -0.02206 | 0.03800 |
| 4751_RPA4772_argF;__ | -0.28283 | 0.04187 | -0.03049 | -0.01583 |
| 4752_RPA4773_argD;__ | -0.07091 | 0.07049 | 0.05247 | 0.08746 |
| 4753_RPA4774_CDS;__5 | 0.21226 | 0.10764 | 0.01587 | -0.01229 |
| 4754_RPA4775_phoB;__ | -0.11557 | 0.04418 | 0.11167 | 0.10007 |
| 4755_RPA4776_phoU;__ | -0.30985 | 0.04583 | -0.08821 | -0.07915 |
| 4756_RPA4777_pstB;__ | -0.23328 | 0.02958 | 0.06433 | 0.04746 |
| 4757_RPA4778_pstA;__ | -0.25373 | 0.01107 | 0.05649 | -0.05058 |
| 4758_RPA4779_pstC;__ | -0.20768 | -0.12336 | -0.11411 | -0.01711 |
| 4759_RPA4780_pstS;__ | -0.32565 | 0.03356 | -0.21988 | -0.01968 |
| 4760_RPA4781_phoR;__ | 0.04337 | -0.08824 | -0.13124 | -0.12170 |
| 4761_RPA4782_CDS;__5 | 0.04961 | 0.05669 | 0.13266 | 0.02163 |
| 4762_RPA4783_CDS;__5 | 0.08833 | -0.60416 | -0.06040 | 0.01764 |
| 4763_RPA4784_CDS;__5 | -0.05725 | 0.08236 | -0.00793 | 0.04929 |
| 4764_RPA4785_CDS;__5 | -0.05821 | -0.08583 | 0.12995 | 0.05531 |
| 4765_RPA4786_rhlG;__ | -0.16135 | -0.17582 | -0.18277 | 0.03999 |
| 4766_RPA4787_CDS;__5 | -0.20681 | -0.02758 | 0.03415 | 0.05680 |
| 4767_RPA4788_ugpB;__ | -0.07226 | 0.08905 | -0.05927 | 0.07063 |
| 4768_RPA4789_CDS;__5 | -0.08036 | -0.00473 | 0.04023 | -0.01732 |
| 4769_RPA4790_CDS;__5 | -0.16667 | -0.09270 | 0.04014 | 0.06021 |
| 4770_RPA4791_CDS;__5 | -0.09788 | 0.09660 | 0.00292 | 0.08109 |
| 4771_RPA4792_CDS;__5 | -0.11522 | 0.07228 | 0.02008 | 0.01407 |
| 4772_RPA4793_QxtA;__ | -0.04162 | -0.00391 | -0.02597 | -0.07222 |
| 4773_RPA4794_qxtB;__ | -0.10889 | 0.02256 | 0.21605 | -0.05067 |
| 4774_RPA4795_CDS;__5 | 0.45485 | -0.01530 | 0.20361 | 0.21511 |
| 4775_RPA4796_CDS;__5 | -0.06605 | 0.11032 | -0.03023 | 0.13737 |
| 4776_RPA4797_CDS;__5 | -0.19815 | 0.08618 | -0.07584 | 0.02092 |
| 4777_RPA4798_CDS;__5 | -0.13386 | 0.07487 | 0.01670 | -0.03240 |
| 4778_RPA4799_CDS;__5 | -0.15943 | 0.11125 | -0.12460 | -0.00542 |
| 4779_RPA4800_CDS;__5 | 0.06513 | 0.04844 | 0.16616 | -0.10031 |
| 4780_RPA4801_CDS;__5 | -0.11612 | 0.05492 | -0.01126 | -0.02505 |
| 4781_RPA4802_CDS;__5 | 0.05556 | -0.52505 | 0.06822 | 0.07678 |
| 4782_RPA4803_CDS;__5 | -0.05249 | 0.09698 | -0.03776 | -0.01871 |
| 4783_RPA4804_CDS;__5 | -0.07265 | 0.04769 | -0.05149 | -0.16078 |
| 4784_RPA4805_CDS;__5 | -0.23597 | 0.09533 | 0.13253 | 0.08886 |
| 4785_RPA4806_CDS;__5 | 0.13970 | -0.15959 | 0.12247 | -0.17588 |
| 4786_RPA4807_CDS;__5 | -0.27407 | 0.06704 | -0.01052 | 0.04347 |
| 4787_RPA4808_CDS;__5 | -0.05201 | -0.08098 | 0.09358 | 0.08563 |
| 4788_RPA4809_CDS;__5 | -0.02665 | 0.07992 | 0.00215 | 0.05615 |
| 4789_RPA4810_CDS;__5 | -0.04975 | 0.03189 | 0.15430 | 0.03686 |
| 4790_RPA4811_CDS;__5 | 0.04556 | 0.01728 | -0.04172 | 0.02473 |
| 4791_RPA4812_CDS;__5 | -0.06757 | -0.07349 | 0.11363 | 0.04580 |
| 4792_RPA4813_CDS;__5 | -0.12819 | 0.06258 | -0.06149 | -0.11762 |

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| 4793_RPA4814_CDS;__5 | 0.09453 | -0.11888 | 0.02402 | -0.12613 |
| 4794_RPA4815_htpG;__ | -0.10102 | -0.47914 | -0.15053 | 0.00158 |
| 4795_RPA4816_CDS;__5 | -0.15814 | 0.00625 | 0.11893 | 0.02925 |
| 4796_RPA4817_CDS;__5 | -0.13915 | -0.02706 | 0.00398 | -0.01528 |
| 4797_RPA4818_CDS;__5 | -0.01279 | -0.02840 | 0.16014 | -0.68279 |
| 4798_RPA4819_CDS;__5 | 0.39275 | 0.07971 | -0.08398 | 0.10877 |
| 4799_RPA4820_eIF-2B; | -0.11839 | 0.07966 | -0.03102 | 0.02211 |
| 4800_RPA4821_CDS;__5 | -0.11568 | 0.08586 | -0.05162 | 0.03360 |
| 4801_RPA4822_CDS;__5 | -0.01665 | -0.06632 | -0.11782 | -0.06586 |
| 4802_RPA4823_CDS;__5 | -0.14180 | 0.00674 | 0.04807 | 0.04715 |
| 4803_RPA4824_CDS;__5 | 0.00387 | 0.11449 | -0.02337 | -0.08542 |
| 4804_RPA4825_CDS;__5 | 0.07572 | 0.01077 | 0.34238 | -0.26364 |
| 4805_RPA4826_recQ;__ | -0.10075 | 0.00891 | 0.06046 | 0.09537 |
| 4806_RPA4827_CDS;__5 | -0.06549 | -0.13453 | 0.24102 | -0.17390 |
| 4807_RPA4828_CDS;__5 | 0.27474 | 0.16845 | 0.09673 | 0.05237 |
| 4808_RPA4829_caiC;__ | -0.18631 | 0.03005 | 0.09648 | 0.06706 |
| 4809_RPA4830_CDS;__5 | -0.03374 | 0.06153 | 0.01106 | 0.02202 |
| 4810_RPA4831_CDS;__5 | 0.20160 | 0.00168 | 0.10999 | 0.10746 |
| 4811_RPA4832_clcD;__ | 0.06465 | -0.14911 | 0.16463 | 0.08500 |
| 4812_RPA4833_CDS;__5 | -0.01567 | 0.04519 | 0.09035 | 0.01471 |
| 4813_RPA4834_msrA,_p | -0.06637 | -0.11152 | 0.12105 | -0.15567 |
| 4814_RPA4835_CDS;__5 | -0.26446 | -0.07188 | 0.04009 | -0.03232 |
| 4815_RPA4836_rpsT;__ | -0.14033 | -0.04206 | 0.03443 | -0.02242 |