

Tutorial 11: Basic scripting for querying (raw and normalized) data and table



Querying Data

ArrayTrack provides a way to select a group of data easily. Users can take advantage of this convenience to select a bunch of data for further data analysis.

Query data from the database tree

The image displays a software interface for querying a database tree. On the left, a tree structure under 'ANONYMOUS' shows folders like 'Affy_Rat_MAS5_only', 'Gene Lists', and 'D0_T12'. A context menu is open over the 'D0_T12' folder, with options including 'Batch Import', 'Rename', 'Gene Lists', 'Select datasets', 'Show experiment design', and 'Show dye-flip pairs'. The 'Select datasets' option is highlighted, and a sub-menu is visible with 'Select raw datasets...', 'Select normalized data', and 'Select any datasets...'. Below this, an 'Input' dialog box is shown with the title 'Select dataset descriptions containing:'. The input field contains 'D0*' and the 'OK' button is highlighted. A red arrow points from the 'D0*' input to the 'D0_T12' folder in the tree. On the right, the expanded tree shows a detailed view of the 'D0_T12' folder, listing various datasets and their associated files, such as 'D0_T12_B_a D0_T12_B(Biotin)', 'MAS5 {D0_T12_B_a} [file: Temp35270.txt]', and 'Mean/Median Scaling, ifs=N, tv=1000.0, s=Median, sb=Y {D0_T12_B_a}'. A red arrow points from the 'Input' dialog to the 'D0_T12' folder in this expanded view.

Only data containing "D0" will be selected

Query data in tables

Various criteria for filtering data

Datasets for array type Affy_RT-U34

Edit View Input/Output Spots

Create Gene List with Selections

Filter->

CONTROL_TYPE GENE BANKACC GENENAME GEN_DESCR_MFR GEN_ID_MFR LO

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Contains
Doesn't Contain
In List
Like
Not Like
Is Null
Is Not Null
=
!=
<
<=
>
>=

case sensitive

Insert reference to another field

CONTROL_TYPE	GENE BANKACC	GENENAME	GEN_DESCR_MFR	GEN_ID_MFR	LO
	AA108277	EST0020 rat lambda ZAPII library (C.P.Hamel)	Rattus norvegicus	AA108277_at	28
	AA108308	EST0051 rat lambda ZAPII library (C.P.Hamel)	Rattus norvegicus	AA108308_i_at	31
	AA108308	EST0051 rat lambda ZAPII library (C.P.Hamel)	Rattus norvegicus	AA108308_s_at	
	AA684537	EST104685 Rat PC-12 cells, untreated	Rattus sp. cDNA clone	AA684537_at	29
	AA684929	EST105793 Rat PC-12 cells, untreated	Rattus sp. cDNA clone	AA684929_f_at	
	AA684960	EST105866 Rat PC-12 cells, untreated	Rattus sp. cDNA clone	AA684960_f_at	
	AA684963	EST105871 Rat PC-12 cells, untreated	Rattus sp. cDNA clone	AA684963_at	29
	AA685112	EST106280 Rat PC-12 cells, untreated	Rattus sp. cDNA clone	AA685112_at	29
	AA685152	EST106386 Rat PC-12 cells, untreated	Rattus sp. cDNA 5' end	AA685152_r_at	25
	AA685376	EST107010 Rat PC-12 cells, untreated	Rattus sp. cDNA clone	AA685376_f_at	
	AA685876	EST108473 Rat PC-12 cells, NGF-treated (9 days)	Rattus sp. c	AA685876_at	30
	AA685903	EST108576 Rat PC-12 cells, NGF-treated (9 days)	Rattus sp. c	AA685903_at	36
	AA686031	EST109008 Rat PC-12 cells, NGF-treated (9 days)	Rattus sp. c	AA686031_at	30
	AA686579	EST110738 Rat PC-12 cells, NGF-treated (9 days)	Rattus sp. c	AA686579_at	30
	AA686870	EST111576 Rat PC-12 cells, NGF-treated (9 days)	Rattus sp. c	AA686870_f_at	
	AA686870	EST111576 Rat PC-12 cells, NGF-treated (9 days)	Rattus sp. c	AA686870_i_at	
	AA799336	EST188833 Rattus norvegicus cDNA, 5' end	/clone=RHEAA38	AA799336_at	29
	AA819943	EST49a-1 Rat Brain, Stratagene (cat.#936501)	Rattus norvegicus	AA819943_at	
	AA848218	EST190978 Normalized rat heart, Bento Soares	Rattus sp. cDNA	AA848218_at	64
	AA848268	EST191028 Normalized rat heart, Bento Soares	Rattus sp. cDNA	AA848268_at	30
	AA848421	EST191181 Normalized rat kidney, Bento Soares	Rattus sp. cDNA	AA848421_at	30
	AA848546	EST191306 Normalized rat kidney, Bento Soares	Rattus sp. cDNA	AA848546_at	49
	AA848563	EST191323 Rattus norvegicus cDNA, 5' end	/clone=RLUAC08	AA848563_s_at	
	AA859934	UI-R-E0-cg-d-04-0-UI.s1 UI-R-E0	Rattus norvegicus cDNA clone	AA859934_at	49
	AA875509	UI-R-E0-ct-c-08-0-UI.s1 UI-R-E0	Rattus norvegicus cDNA clone	AA875509_at	31
	AA933181	ESTPIM-2MF Rat Brain, Stratagene (cat.#936501)	Rattus norvegicus	AA933181_at	36

Sort the table

Click fresh button

Click the column title to sort ascending ▲ or descending ▼

Datasets for array type Affy_RT-U34

Edit View Input/Output Spots

Create Gene List with Selections

	CONTROL_TYPE	GENEBANKACC	GENENAME	GEN_DESCR_MFR	▲ GEN_ID_MFR	LOCUSID
1		AA108277	Hsph1	AA108277 EST0020 rat lambda ZAPII library (C.F	AA108277_at	288444
2		AA108308	Mdm2_predicted	AA108308 EST0051 rat lambda ZAPII library (C.F	AA108308_i_at	314856
3		AA108308		AA108308 EST0051 rat lambda ZAPII library (C.F	AA108308_s_at	
4		AA684537	Ndufb5_predicted	AA684537 EST104685 Rat PC-12 cells, untreat	AA684537_at	294964
5		AA684929		AA684929 EST105793 Rat PC-12 cells, untreat	AA684929_f_at	
6		AA684960		AA684960 EST105866 Rat PC-12 cells, untreat	AA684960_f_at	
7		AA684963	Fkbp2_predicted	AA684963 EST105871 Rat PC-12 cells, untreat	AA684963_at	293702
8		AA685112	Ndufs8_predicted	AA685112 EST106280 Rat PC-12 cells, untreat	AA685112_at	293652
9		AA685152	Nedd8	AA685152 EST106386 Rat PC-12 cells, untreat	AA685152_r_at	25490
10		AA685376		AA685376 EST107010 Rat PC-12 cells, untreat	AA685376_f_at	
11		AA685876	Cyb5r1	AA685876 EST108473 Rat PC-12 cells, NGF-tre	AA685876_at	304805
12		AA685903	Tra1_predicted	AA685903 EST108576 Rat PC-12 cells, NGF-tre	AA685903_at	362862
13		AA686031	Ndufs1	AA686031 EST109008 Rat PC-12 cells, NGF-tre	AA686031_at	301458
14		AA686579	Sumo1	AA686579 EST110738 Rat PC-12 cells, NGF-tre	AA686579_at	301442
15		AA686870		AA686870 EST111576 Rat PC-12 cells, NGF-tre	AA686870_f_at	
16		AA686870		AA686870 EST111576 Rat PC-12 cells, NGF-tre	AA686870_i_at	
17		AA799336	Ndufab1_predicted	AA799336 EST188833 Rattus norvegicus cDNA,	AA799336_at	293453
18		AA819943		AA819943 EST49a-1 Rat Brain, Stratagene (cat	AA819943_at	
19		AA848218	Top1	AA848218 EST190978 Normalized rat heart, Ber	AA848218_at	64550
20		AA848268	Dnaja4	AA848268 EST191028 Normalized rat heart, Ber	AA848268_at	300721
21		AA848421	Ung	AA848421 EST191181 Normalized rat kidney, Be	AA848421_at	304577
22		AA848546	MGC72992	AA848546 EST191306 Normalized rat kidney, Be	AA848546_at	494345
23		AA848563	Hspa1a /// Hspa1b_mapped	AA848563 EST191323 Rattus norvegicus cDNA,	AA848563_s_at	
24		AA859934	LOC499716	AA859934 UI-R-E0-cg-d-04-0-UI.s1 UI-R-E0 Ratt	AA859934_at	499716
25		AA875509	Mdm2_predicted	AA875509 UI-R-E0-ct-c-08-0-UI.s1 UI-R-E0 Ratt	AA875509_at	314856
26		AA933181	Igsf4a	AA933181 ESTPIM-2MF Rat Brain, Stratagene (c	AA933181_at	363058
27		AA956437	RGD1559939_predicted	AA956437 UI-R-E1-fj-h-02-0-UI.s1 UI-R-E1 Rattu	AA956437_at	500006