

CROSS-REFERENCE ART COLLECTIONS

10 **PEPTIDE OR PROTEIN SEQUENCE**
 20 .Containing modified or unusual amino acid (See note 1 and note 2)
 21 ..Containing D-amino acid
 22 ..Containing radioactive atom (See note 3)
 23 ..Containing halogen (See note 3)
 24 ..Containing sulfur (See note 4)
 25 ..Containing heavy metal or salt thereof
 30 .Linear peptide or protein containing a nonpeptide or abnormal peptide link (See note 5)
 31 ..Retro-inverted
 40 .Angiotensin; related peptides
 50 .Atrial or brain natriuretic peptide; related peptides
 60 .Calcitonin; related peptides
 70 .Corticotropin; related peptides
 80 .Endorphin or Enkephalin; related peptides
 90 .Erythropoietin; related peptides
 100 .Factor VIII, AHF; related peptides
 110 .Gonadotropin; related peptides
 120 .Growth hormone, growth factor other than T-cell or B-cell growth factor, and growth hormone releasing factor; related peptides
 130 .Luteinizing hormone-releasing hormone (LH-RH); related peptides
 140 .Lymphokine; related peptides
 141 ..Interleukin
 142 ..Interferon
 143 ..Lymphotoxin
 144 ..Tumor necrosis factor
 145 ..Colony stimulating factor
 150 .Oxytocin or vasopressin; related peptides
 160 .Somatostatin; related peptides
 170 .Vasoactive intestinal peptides; related peptides
 180 .Thymus derived hormone or factor; related peptides

190 .Antibiotic
 200 .Bacterial peptide or bacterial protein (See note 6)
 210 .Parasitic peptide or parasitic protein (See note 6)
 220 .Viral peptide or viral protein (See note 6)
 221 ..Retrovirus related, or human immunodeficiency virus related, or simian immunodeficiency virus related
 222 ..Foot and mouth disease related
 223 ..Hepatitis related
 224 ..Herpes related
 230 .Multicellular plant peptide or multicellular plant protein
 240 .Enzyme or isoenzyme
 250 .Enzyme inhibitor
 260 .Containing Cys-Cys disulfide bridge between nonadjacent cysteine residues (See note 7)
 270 .Cyclic peptide or cyclic protein (See note 8)
 280 .Bound to a nonpeptide drug, nonpeptide label, nonpeptide carrier, or a nonpeptide resin
 290 .Polyamino acid or polypeptide with an uninterrupted series of peptide repeating units
 300 .Signal or leader sequence
 310 .Linker sequence
 320 .Modification to prevent enzymatic degradation (See note 9)

FOREIGN ART COLLECTIONSFOR **CLASS-RELATED FOREIGN DOCUMENTS****DIGESTS**

DIG 500 **PEPTIDES CONTAINING SACCHARIDE RADICALS AND HAVING A FULLY DEFINED SEQUENCE OF AMINO ACIDS AND WHEREIN THE PEPTIDE SEQUENCE IS NOT PART OF A RING STRUCTURE, E.G., BLEOMYCIN, PHLEOMYCIN, MURAMYLPEPTIDES, ETC., (C07K-9/00D, 9/00D2, 9/00D4, 9/00D9)**

- DIG 510 **PEPTIDES CONTAINING SACCHARIDE RADICALS AND HAVING A FULLY DEFINED SEQUENCE OF AMINO ACIDS WHEREIN THE PEPTIDE SEQUENCE IS PART OF A RING STRUCTURE AND IS DIRECTLY ATTACHED TO A HETERO ATOM OF THE SACCHARIDE ATOM, E.G., ACTAPLANIN, AVOPARCIN, RISTOMYCIN, VANCOMYCIN, ETC., (C07K 9/00F2)**
- DIG 520 **PEPTIDES CONTAINING SACCHARIDE RADICALS AND HAVING A FULLY DEFINED SEQUENCE OF AMINO ACIDS WHEREIN THE PEPTIDE SEQUENCE IS PART OF A RING STRUCTURE AND IS NOT DIRECTLY ATTACHED TO A HETERO ATOM OF THE SACCHARIDE ATOM (C07K-9/00F4)**
- DIG 530 **PROTEINS HAVING A FULLY DEFINED SEQUENCE OF AMINO ACIDS OR DERIVATIVES THEREOF, I.E., MORE THAN 100 AMINO ACIDS (C07K-13/00)**
- DIG 532 **CYCLIC PEPTIDES DERIVED FROM AT LEAST FIVE AMINO ACIDS AND CONTAINING AT LEAST ONE ABNORMAL PEPTIDE LINK (C07K-7/50)**
- DIG 533 .With only normal peptide links in the ring (C07K-7/52)
- DIG 534 ..With all amino acids in L-form (C07K-7/52A)
- DIG 535 ..With at least one amino acid in D-form (C07K-7/52B)
- DIG 536 .With at least one abnormal peptide link in the ring (C07K-7/54)
- DIG 537 ..The cyclisation not occurring through the 2,4-diamino-butanoic acid (C07K-7/56)
- DIG 538 ...Bacitracins; related peptides (C07K-7/58)
- DIG 539With all amino acids in L-form (C07K-7/58A)
- DIG 541With at least one amino acid in D-form (C07K-7/58B)
- DIG 542 ..The cyclisation occurring through the 4-amino group of the 2,4-diamino butanoic acid (C07K-7/60)
- DIG 543 ...Polymyxins; related peptides (C07K-7/62)
- DIG 544With all amino acids in L-form (C07K-7/62A)
- DIG 545With at least one amino acid in D-form (C07K-7/62B)
- DIG 546 **CYCLIC PEPTIDES DERIVED FROM AT LEAST FIVE AMINO ACIDS AND CONTAINING ONLY NORMAL PEPTIDE LINKS (C07K-7/64)**
- DIG 547 .Gramicidins S, C; Tyrocidins A, B, C; related peptides (C07K-7/66)
- DIG 548 ..With all amino acids in L-form (C07K-7/66A)
- DIG 549 ..With at least one amino acid in D-form (C07K-7/66B)
- DIG 550 **PEPTIDES CONTAINING THE SEQUENCE (A-LEU-GLU-ILE-LYS-ORN-ILE-PHE-HIS-ASP-ASP NH₂), A BEING H OR ILE-CYS, E.G., BACITRACINS A OR F OR RELATED PEPTIDES (C07K-99/00B)**
- DIG 551 .With all amino acids in L-form (C07K-99/00B1)
- DIG 552 .With at least one amino acid in D-form (C07K-99/00B2)
- DIG 553 **PEPTIDES CONTAINING THE C-TERMINAL SEQUENCE (X-CYS-PHE-GLY-PHE-GLY-GLY ARG-A-ASP-ARG-ILE-GLY-ALA-GLN-SER-GLY-LEU-GLY-CYS-Y) WITH X BEING NH, Y BEING -OH, NH, OR PART OF THE SEQUENCE -ASN-SER-PHE-ARG-TYR-ARG-ARG- AND A BEING MET OR ILE, E.G., ATRIOPEPTINE; ATRIAL NATRIURETIC PEPTIDES AND PROTEINS (ANP) (C07K-99/00C)**
- DIG 554 .With all amino acids in L-form (C07K-99/00C1)
- DIG 555 .With at least one amino acid in D-form (C07K-99/00C2)
- DIG 556 **PEPTIDES CONTAINING THE SEQUENCE (ASP-PRO-A-TYR-B-C-VAL-SER-ASN-ALA-ASP-LEU MET-ASP- PHE-LYS-ASN-LEU-LEU-Y), WITH A, B, C BEING AMINO ACIDS, AND Y BEING A PEPTIDE SEQUENCE, E.G., CARDIODILATIN (SEE SUBCLASS 553 FOR PATENTS THAT CONTAIN THE AERIAL NATRIURETIC PEPTIDE SEQUENCE) (C07K-99/00D)**
- DIG 557 .With all amino acids in L-form (C07K-99/00D1)

- DIG 558 .With at least one amino acid in D-form (C07K-99/00D2)
- DIG 559 **PEPTIDES CONTAINING THE SEQUENCE (TYR-ALA-ASP-ALA-ILE-PHE-TYR - ASN-SER TYR-ARG-LYS-VAL -LEU-GLY-GLN-LEU-SER- ALA-ARG-LYS-LEU-LEU- GLN-ASP ILE-MET-A-ARG- GLN-GLN-GLY-GLU-B-ASN-GLN-GLU-C-GLY- -ALA-D-E ARG-LEU-NH) WITH A BEING SER OR ASN, B BEING SER OR ARG, C BEING ARG OR GLN, D BEING ARG OR LYS, AND E BEING ALA, VAL, OR PHE, E.G., SOMATOLIBERIN (GONADOTROPIN RELEASING FACTOR) (C07K-99/00F)**
- DIG 560 **PEPTIDES CONTAINING THE SEQUENCE (TYR-D-ALA-PHE-GLY-TYR -PRO-SER), E.G., DERMORPHIN (C07K-99/00H)**
- DIG 565 **PEPTIDES CONTAINING THE SEQUENCE (CYS-TYR-A-GLN-ASN-CYS-PRO-B -GLY NH2), WITH A BEING ILE OR PHE, B BEING LEU OR ARG OR LYS OR S-S BRIDGE 1-6, E.G., OXYTOCIN, VASOPRESSIN, OR A RELATED PEPTIDE (C07K 99/02)**
- DIG 566 .With all amino acids in L-form (C07K-99/02A)
- DIG 567 .With at least one amino acid in D-form (C07K-99/04)
- DIG 570 **PEPTIDES CONTAINING THE SEQUENCE (SER-TYR-SER-MET-GLU-HIS-PHE - ARG TRP-GLY-LYS-PRO-VAL-GLY - LYS-LYS-ARG-ARG-PRO-VAL-LYS - VAL-TYR-PRO ASP-GLY- A-B-C-D-E-ALA-GLU- ALA-PHE-PRO-LEU-GLU-PHE-OH), A-B-C-D-E BEING GLU-ALA-GLU-ASP-SER- OR ALA-GLU-ASP-GLU-LEU OR ALA-GLU-ASP-GLU-SER, E.G., CORTICOTROPIN (ACTH) OR RELATED PEPTIDES (C07K-99/06)**
- DIG 571 .With all amino acids in L-form (C07K-99/06A)
- DIG 572 .With at least one amino acid in D-form (C07K-99/08)
- DIG 580 **PEPTIDES CONTAINING THE SEQUENCE (CH3CO-SER-TYR-SER-MET-GLU - HIS-PHE ARG-TRP-GLY-LYS- PRO-VAL-NH2), E.G., A-MSH, OR RELATED PEPTIDES (FRAGMENTS WHICH ARE COMMON WITH DIGEST 570 ARE ALSO IN THAT CLASSIFICATION) (C07K-99/10)**
- DIG 581 .With all amino acids in L-form (C07K-99/10A)
- DIG 582 .With at least one amino acid in D-form (C07K-99/12)
- DIG 590 **PEPTIDES CONTAINING THE SEQUENCE (A-ARG-VAL-TYR-VAL- ILE- HIS-PRO-PHE-B), A BEING ASP OR ASN, AND B BEING -OH OR HIS-LEU-OH, E.G., ANGIOTENSIN I, PEPSITENSIN, OR RELATED PEPTIDES (C07K-99/14)**
- DIG 591 .With all amino acids in L-form (C07K-99/14A)
- DIG 592 .With at least one amino acid in D-form (C07K-99/16)
- DIG 600 **PEPTIDES CONTAINING THE SEQUENCE (A-ARG-PRO-PRO-GLY-PHE-SER-PRO-PHE-ARG OH), A BEING H OR LYS, E.G., KALLIDIN, BRADYKININ, ETC. OR RELATED PEPTIDES (C07K-99/18)**
- DIG 601 .With all amino acids in L-form (C07K-99/18A)
- DIG 602 .With at least one amino acid in D-form (C07K-99/20)
- DIG 610 **PEPTIDES CONTAINING THE SEQUENCE (PGL-PRO-SER-LYS-ASP-ALA-PHE - ILE GLY-LEU-MET-NH2), E.G., ELEDOISIN, OR RELATED PEPTIDES (C07K-99/22)**
- DIG 611 .With all amino acids in L-form (C07K-99/22A)
- DIG 612 .With at least one amino acid in D-form (C07K-99/24)
- DIG 620 **PEPTIDES CONTAINING THE SEQUENCE (GLY-ILE-VAL-GLU-GLN-CYS-CYS - A-B-C CYS-SER-LEU-TYR-GLN - LEU-GLU-ASN-TYR-CYS -ASN-PH) AND (PHE-VAL-ASN- GLN-HIS-LEU-CYS-GLY-SER- HIS-LEU-VAL-GLU-ALA-LEU- TYR-LEU-VAL-CYS GLY-GLU- ARG-GLY-PHE -PHE-TYR-TYR-PRO-LYS-D), A-B-C BEING -ALA-SER VAL-, OR -ALA-GLY-VAL-, OR -THR-SER-ILE-, OR -ALA-SER-VAL-, D BEING ALA-OH OR THR-OH, E.G., HUMAN INSULIN OR RELATED PEPTIDES (C07K-99/26)**
- DIG 621 .With all amino acids in L-form (C07K-99/26A)
- DIG 622 .With at least one amino acid in D-form (C07K-99/28)

- DIG 630 PEPTIDES CONTAINING THE SEQUENCE
(PGL-GLY-PRO-TRP-A-GLU-GLU- B-
GLU-B ALA-TYR- GLY-TRP-MET-
LEU- ASP-PHE- TYR- NH₂, A
BEING MET, LEU OR VAL, B BEING
GLU OR ALA, E.G., GASTRIN OR
RELATED PEPTIDES, ETC. (C07K
99/30)
- DIG 631 .With all amino acids in L-form
(C07K-99/30A)
- DIG 632 .With at least one amino acid in
D-form (C07K-99/32)
- DIG 640 PEPTIDES CONTAINING THE SEQUENCE
(HIS-SER-GLN-GLY-THR-PHE-THR -
SER ASP-TYR-LYS-SER- TYR-LEU-
ASP-SER-ARG-ARG-ALA -GLN-ASP-
PHE-VAL-GLN-TRP LEU- MET-ASN-
THR-OH), E.G., GLUCAGON OR
RELATED PEPTIDES, ETC. (C07K-
99/34)
- DIG 641 .With all amino acids in L-form
(C07K-99/34A)
- DIG 642 .With at least one amino acid in
D-form (C07K-99/36)
- DIG 650 PEPTIDES CONTAINING THE SEQUENCE
(HIS-SER-ASP-GLY-THR-PHE-THR -
SER GLU-LEU-SER-ARG-LEU-ARG -
ASP-SER-ALA-ARG-LEU-GLN-ARG -
LEU-LEU-GLN GLY-LEU-VAL-NH₂),
E.G., SECRETIN OR RELATED
PEPTIDES, ETC. (FRAGMENTS
CONTAINING THE UNCHANGED
SEQUENCE 4-8, I.E., GLY-THR-
PHE-THR-SER ARE ALSO
CLASSIFIED IN DIGEST 640)
(C07K-99/38)
- DIG 651 .With all amino acids in L-form
(C07K-99/38A)
- DIG 652 .With at least one amino acid in
D-form (C07K-99/40)
- DIG 660 PEPTIDES CONTAINING THE SEQUENCE
(CYS-SER-ASN-LEU-SER-THR-CYS -
VAL LEU-SER-ALA-TYR-TRP-ARG -
ASN-LEU-ASN-ASN-PHE-HIS -ARG-
PHE-SER-GLY-MET GLY- PHE-GLY-
PRO-GLU-THR-PRO-OH), E.G., A-
THYROCALCITONIN, ETC., I.E.,
PORCINE OR RELATED PEPTIDES
(C07K-99/42)
- DIG 661 .With all amino acids in L-form
(C07K-99/42A)
- DIG 662 .With at least one amino acid in
D-form (C07K-99/44)
- DIG 670 PEPTIDES CONTAINING THE SEQUENCE
(CYS-GLY-ASN-LEU-SER-THR-CYS -
MET LEU-GLY-THR-TYR- THR-GLU-
ASP-PHE-ASN-LYS -PHE-HIS-THR-
PHE-PRO -GLN THR-ALA-ILE-GLY-
VAL-GLY-ALA-PRO-OH), E.G.,
CALCITONIN M (HUMAN) OR
RELATED PEPTIDES (FRAGMENTS
WHICH ARE COMMON WITH DIGEST
660 ARE ALSO IN THAT
CLASSIFICATION) (C07K-99/46)
- DIG 671 .With all amino acids in L-form
(C07K-99/46A)
- DIG 672 .With at least one amino acid in
D-form (C07K-99/48)
- DIG 680 PEPTIDES CONTAINING THE SEQUENCE
(HCO-VAL- ILE- GLY-ALA-LEU-
ALA-VAL VAL- VAL-TRP-LEU-TRP-
PHE- LEU-TRP-LEU-TRP-
NHCH₂CH₂OH), E.G., GRAMICIDINS
A OR B OR RELATED PEPTIDES
(C07K-99/50)
- DIG 681 .With all amino acids in L-form
(C07K-99/50A)
- DIG 682 .With at least one amino acid in
D-form (C07K-99/52)
- DIG 690 PEPTIDES CONTAINING THE SEQUENCE
(PGL-HIS-TRP-SER-TYR-GLY-LEU -
ARG PRO-GLY-NH₂), E.G., LH-RH,
LRF, OR RELATED PEPTIDES
(C07K-99/54)
- DIG 691 .With all amino acids in L-form
(C07K-99/54A)
- DIG 692 ..1-Pgl, 10-Gly derivatives
(C07K-99/54A1)
- DIG 693 ..Des-1-Pgl derivatives (C07K-99/
54A2)
- DIG 694 ..Des-10-Gly derivatives (C07K-
99/54A3)
- DIG 695 .With at least one amino acid in
D-form (C07K-99/56)
- DIG 696 ..1-Pgl, 10-Gly derivatives
(C07K-99/56A1)
- DIG 697 ..Des-1-Pgl derivatives (C07K-99/
56A2)
- DIG 698 ..Des-10-Gly derivatives (C07K-
99/56A3)
- DIG 700 PEPTIDES CONTAINING THE SEQUENCE
(ALA-GLY-CYS-LYS-ASN-PHE-PHE-
TRP LYS-THR-PHE-THR -SER-CYS-
OH), E.G., SOMATOSTATIN, SRIF,
OR RELATED PEPTIDES (C07K-99/
58)
- DIG 701 .All amino acids in L-form (C07K-
99/58A)

- DIG 702 ..S-S bridge 3,14 being modified (for the reduced form Cys-3 or Cys-14 being modified) (C07K-99/58A1A)
- DIG 703 ...Modification at Cys-3 (C07K-99/58A1B)
- DIG 704 ...Modification at Cys-14 (C07K-99/58A1C)
- DIG 705 ...Modification at both Cys-3 and Cys-14 (C07K-99/58A1D)
- DIG 706 .At least one amino acid in D-form (C07K-99/60)
- DIG 707 ..S-S bridge 3,14 being modified (for the reduced form Cys-3 or Cys-14 being modified) (C07K-99/A1)
- DIG 708 ...Modification at Cys-3 (C07K-99/60A1B)
- DIG 709 ...Modification at Cys-14 (C07K-99/60A1C)
- DIG 710 ...Modifications at both Cys-3 and Cys-14 (C07K-99/60A1D)
- DIG 720 **PEPTIDES CONTAINING THE SEQUENCE (TYR-GLY-GLY-PHE-MET-THR-SER-GLU LYS-SER-GLN-THR-PRO- LEU-VAL-THR-LEU-PHE-LYS-ASN- ALA-ILE-ILE-LYS-ASN ALA-HIS- LYS-LYS-GLY-GLU-OH), E.G., B-ENDORPHIN OR RELATED PEPTIDES (C07K-99/62)**
- DIG 721 .With all amino acids in L-form (C07K-99/62A)
- DIG 722 .With at least one amino acid in D-form (C07K-99/64)
- DIG 730 **PEPTIDES CONTAINING THE SEQUENCE (TYR-GLY-GLY-PHE-MET-THR-SER-GLU LYS-SER-GLN- THR-PRO-LEU-VAL-THR-OH), E.G., LIPOTROPIN OR RELATED PEPTIDES (FRAGMENTS WHICH ARE COMMON WITH DIGEST 720 ARE ALSO IN THAT CLASSIFICATION) (C07K-99/66)**
- DIG 731 .With all amino acids in L-form (C07K-99/66A)
- DIG 732 .With at least one amino acid in D-form (C07K-99/68)
- DIG 740 **PEPTIDES CONTAINING THE SEQUENCE (TRY-GLY-GLY-PHE-X), X BEING AN AMINO ACID, E.G., ENKEPHALINS OR RELATED PEPTIDES (SEQUENCES CONTAINING MORE THAN FIVE AMINO ACIDS ARE CLASSIFIED IN DIGESTS 720 OR 730) (C07K 99/70)**
- DIG 741 .With all amino acids in L-form (C07K-99/70A)
- DIG 742 .With at least one amino acid in D-form (C07K-99/72)
- DIG 750 **PEPTIDES CONTAINING THE SEQUENCE (ARG-LYS-ASP-VAL-TYR-VAL-), E.G., THYMIN I OR II, THYMOPOIETINS, OR RELATED PEPTIDES (C07K-99/74)**
- DIG 751 .With all amino acids in L-form (C07K-99/74A)
- DIG 752 .With at least one amino acid in D-form (C07K-99/76)
- DIG 760 **PEPTIDES CONTAINING THE SEQUENCE (ASP-A-GLY-PRO-TYR-B-MET- GLU-HIS PHE-ARG-TRP-GLY- SER-PRO-PRO-LYS-ASP-OH), A BEING GLU OR SER, B BEING LYS OR ARG, E.G., B-MELANOTROPINS OR RELATED PEPTIDES (C07K-99/78)**
- DIG 761 .With all amino acids in L-form (C07K-99/78A)
- DIG 762 .With at least one amino acid in D-form (C07K-99/80)
- DIG 770 **PEPTIDES CONTAINING THE SEQUENCE (THR-VAL-PRO-SER- (N-METHYL)VAL-) (C07K-99/82)**
- DIG 771 .With all amino acids in L-form (C07K-99/82A)
- DIG 772 .With at least one amino acid in D-form (C07K-99/84)
- DIG 780 **TETRAPEPTIDES (DERIVED FROM ONLY FOUR AMINO ACIDS) (C07K-5/10)**
- DIG 781 .Contains at least one ring formed only through peptide links (C07K 5/12B)
- DIG 782 .With at least one amino acid in D-form (C07K-5/10Z)
- DIG 783 .The first amino acid being heterocyclic (Pro) (C07K-5/10H)
- DIG 784 .The first amino acid contains the same number of amino and carboxylic acid or derivative groups (neutral) (C07K-5/10A)
- DIG 785 ..And aliphatic (C07K-5/10A1)
- DIG 786 ..And carbocyclic ring (Phe) (C07K-5/10A2)
- DIG 787 .The first amino acid contains more amino groups than carboxylic acid or derivative groups (basic) (C07K-5/10B)
- DIG 788 .The first amino acid contains more carboxylic acid or derivative groups than amino groups (acidic) (C07K-5/10C)

- DIG 789 ..Asp-X-Y-Z, Asn-X-Y-Z, or derivatives thereof, X, Y and Z being amino acids (C07K-5/10C1)
- DIG 790 **LINEAR PEPTIDES CONTAINING AT LEAST ONE ABNORMAL PEPTIDE LINK AND DERIVED FROM 5-100 AMINO ACIDS (C07K-7/02)**
- DIG 800 **LINEAR PEPTIDES CONTAINING ONLY NORMAL PEPTIDE LINKS AND DERIVED FROM 5 100 AMINO ACIDS (C07K-7/04)**
- DIG 801 .Contains only 5-11 amino acids (C07K-7/06)
- DIG 802 ..With all amino acids in L-form (C07K-7/06A)
- DIG 803 ..With at least one amino acid in D-form (C07K-06B)
- DIG 810 .Contains only 12-20 amino acids (C07K-7/08)
- DIG 811 ..With all amino acids in L-form (C07K-7/08A)
- DIG 812 ..With at least one amino acid in D-form (C07K-7/08B)
- DIG 820 .Contains 21-100 amino acids (C07K-7/10)
- DIG 821 ..With all amino acids in L-form (C07K-10A)
- DIG 822 ..With at least one amino acid in D-form (C07K-7/10B)