CPC COOPERATIVE PATENT CLASSIFICATION

C07K PEPTIDES (peptides in foodstuffs A23; obtaining protein compositions for foodstuffs, working-up proteins for foodstuffs A23J; preparations for medicinal purposes A61K; peptides containing beta-lactam rings C07D; cyclic dipeptides not having in their molecule any other peptide link than those which form their ring, e.g. piperazine-2,5-diones, C07D; ergot alkaloids of the cyclic peptide type C07D 519/02; macromolecular compounds having statistically distributed amino acid units in their molecules, i.e. when the preparation does not provide for a specific; but for a random sequence of the amino acid units, homopolyamides and block copolyamides derived from amino acids C08G 69/00; macromolecular products derived from proteins C08H 1/00; preparation of glue or gelatine C09H; single cell proteins, enzymes C12N; genetic engineering processes for obtaining peptides C12N 15/00; compositions for measuring or testing processes involving enzymes C12Q; investigation or analysis of biological material G01N 33/00)

NOTES

1. In this subclass, the following terms or expressions are used with the meanings indicated:
   - "amino acids" are compounds in which at least one amino group and at least one carboxyl group are bound to the same carbon skeleton and the nitrogen atom of the amino group may form part of a ring;
   - "normal peptide link" is one between an alpha-amino group of an amino acid and the carboxyl group - in position 1 - of another alpha-amino acid;
   - "abnormal peptide link" is a link where at least one of the linked amino acids is not an alpha-amino acid or a link formed by at least one carboxyl or amino group being part of the side chain of a alpha-amino acid;
   - "peptides" are compounds containing at least two amino acid units, which are bound through at least one normal peptide link, including oligopeptides, polypeptides and proteins, where:
     i. "linear peptides" may comprise rings formed through S-S bridges, or through a hydroxy or a mercapto group of an hydroxy- or mercapto-amino acid and the carboxyl group of another amino acid, (e.g. peptide lactones) but do not comprise rings which are formed only through peptide links;
     ii. "cyclic peptides" are peptides comprising at least one ring formed only through peptide links; the cyclisation may occur only through normal peptide links or through abnormal peptide links, e.g. through the 4-amino group of 2,4-diamino-butanoic acid. Thus, cyclic compounds in which at least one link in the ring is a non-peptide link are considered as "linear peptides";
     iii. "depsipeptides" are compounds containing a sequence of at least two alpha-amino acids and at least one alpha-hydroxy carboxylic acid, which are bound through at least one normal peptide link and ester links, derived from the hydroxy carboxylic acids, where:
        a. "linear depsipeptides" may comprise rings formed through S-S bridges, or through an hydroxy or a mercapto group of an hydroxy- or mercapto-amino acid and the carboxyl group of another amino- of hydroxy-acid but do not comprise rings formed only through peptide or ester links derived from hydroxy carboxylic acids, e.g. Gly-Ala-Gly-OCH_2CO_2H and Gly-OCH_2CO-Ala-Gly are considered as "linear depsipeptides", but $HOCH_2CO$-Gly-Ala-Gly does not contain an ester link, and is thus a derivative of Gly-Ala-Gly which is covered by C07K 5/08;
        b. "cyclic depsipeptides" are peptides containing at least one ring formed only through peptide or ester links - derived from hydroxy carboxylic acids -, e.g. Gly-Ala-Gly-OCH_2CO.
2. Fragments of peptides or peptides modified by removal or addition of amino acids, by substitution of amino acids by others, or by combination of these modifications, are classified as the parent peptides. However, fragments of peptides having only four or less amino acids are also classified in group C07K 5/00.
3. Peptides prepared by chemical processes and having an amino acid sequence derived from naturally occurring peptides are classified with the natural one.
4. Peptides prepared by recombinant DNA technology are not classified according to the host, but according to the original peptide expressed, e.g. HIV peptide expressed in E. coli is classified with HIV peptides.
5. When classifying in this subclass, classification is also made in group B01D 15/08 insofar as subject matter of general interest relating to chromatography is concerned.

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

C07K 5/023	covered by	C07K 5/0202
C07K 5/027	covered by	C07K 5/0205
C07K 5/03	covered by	C07K 5/0207
C07K 5/033	covered by	C07K 5/021
C07K 5/037	covered by	C07K 5/0215
C07K 5/062	covered by	C07K 5/06017

C07K 5/065	covered by	C07K 5/06078
C07K 5/068	covered by	C07K 5/06086
C07K 5/072	covered by	C07K 5/06104
C07K 5/075	covered by	C07K 5/0613
C07K 5/078	covered by	C07K 5/06139
C07K 5/083	covered by	C07K 5/0804
C07K 5/087	covered by	C07K 5/0812
C07K 5/09	covered by	C07K 5/0815
C07K 5/093	covered by	C07K 5/0819
C07K 5/097	covered by	C07K 5/0821
C07K 5/103	covered by	C07K 5/1005
C07K 5/107	covered by	C07K 5/1016
C07K 5/11	covered by	C07K 5/1019
C07K 5/113	covered by	C07K 5/1021
C07K 5/117	covered by	C07K 5/1024
C07K 14/185	covered by	C07K 14/1816
C07K 14/725	covered by	C07K 14/705
C07K 14/73	covered by	C07K 14/70514
C07K 14/735	covered by	C07K 14/70535
C07K 14/74	covered by	C07K 14/70539

1/00 General methods for the preparation of peptides {, i.e. processes for the organic chemical preparation of peptides or proteins of any length}

1/003 . {by transforming the C-terminal amino acid to amides}
1/006 . {of peptides containing derivatised side chain amino acids}
1/02 . in solution {(C07K 1/003, C07K 1/006 take precedence)}
1/023 . . {using racemisation inhibiting agents}
1/026 . . {by fragment condensation in solution}
1/04 . on carriers {(C07K 1/003, C07K 1/006 take precedence)}
1/042 . . {characterised by the nature of the carrier}
1/045 . . {using devices to improve synthesis, e.g. reactors, special vessels}
1/047 . . {Simultaneous synthesis of different peptide species; Peptide libraries}
1/06 . using protecting groups or activating agents {(C07K 1/003, C07K 1/006 take precedence)}
1/061 . . {using protecting groups}
1/062 . . . {for alpha- or omega-carboxy functions}
1/063 . . . {for alpha-amino functions}
1/064 . . . {for omega-amino or -guanidino functions}
1/065 . . . {for hydroxy functions, not being part of carboxy functions}
1/066 . . . {for omega-amido functions}
1/067 . . . {for sulfur-containing functions}
1/068 . . . {for heterocyclic side chains}
1/08 . . using activating agents {(C07K 1/003, C07K 1/006 take precedence)}
1/082 . . . {containing phosphorus}
1/084 . . . {containing nitrogen}
1/086 . . . {containing sulfur}
1/088 . . . {containing other elements, e.g. B, Si, As}
1/10 . using coupling agents {(C07K 1/006 takes precedence)}
1/107 . by chemical modification of precursor peptides
1/1072 . . {by covalent attachment of residues or functional groups}
1/1075 . . . {by covalent attachment of amino acids or peptide residues}
1/1077 . . . {by covalent attachment of residues other than amino acids or peptide residues, e.g. sugars, polyols, fatty acids}
1/113 . . without change of the primary structure
1/1133 . . . {by redox-reactions involving cystein/cystin side chains}
1/1136 . . . {by reversible modification of the secondary, tertiary or quarternary structure, e.g. using denaturating or stabilising agents}
1/12 . by hydrolysis {, i.e. solvolysis in general}
1/122 . . {Hydrolysis with acids different from HF}
1/124 . . {Hydrazinolysis}
1/126 . . {Aminolysis}
1/128 . . {sequencing}
1/13 . Labelling of peptides
1/14 . Extraction; Separation; Purification
1/145 . . {by extraction or solubilisation}
1/16 . . by chromatography
1/165 . . . {mixed-mode chromatography}
1/18 . . . Ion-exchange chromatography
1/20 . . . Partition-, reverse-phase or hydrophobic interaction chromatography
1/22 . . . Affinity chromatography or related techniques based upon selective absorption processes
1/24 . . by electrochemical means
1/26 . . . Electrophoresis
1/28 . . . . Isoelectric focusing
1/285 . . . . . {multi dimensional electrophoresis}
1/30 . . by precipitation
1/303 . . . {by salting out}
1/306 . . . {by crystallization}

NOTE

Large single crystals of proteins from solutions are classified in C30B 7/00 for the method and in C30B 29/58 for the crystal

1/32 . . . as complexes
1/34 . . by filtration, ultrafiltration or reverse osmosis
1/36 . . by a combination of two or more processes of different types

2/00 **Peptides of undefined number of amino acids; Derivatives thereof**

4/00 **Peptides having up to 20 amino acids in an undefined or only partially defined sequence; Derivatives thereof**

4/02 . from viruses
4/04 . from bacteria
4/06 . from fungi
4/08 . from algae; from lichens
4/10 . from plants
4/12 . from animals; from humans

NOTE

If no indication to the contrary is given, all amino acids are considered to be in the natural L-form

5/00 **Peptides containing up to four amino acids in a fully defined sequence; Derivatives thereof**

5/02 . containing at least one abnormal peptide link
5/0202 . . {containing the structure -NH-X-X-C(=O)-, X being an optionally substituted carbon atom or a heteroatom, e.g. beta-amino acids}
5/0205 . . {containing the structure -NH-(X)3-C(=O)-, e.g. statine or derivatives thereof}
5/0207 . . {containing the structure -NH-(X)4-C(=O), e.g. 'isosters', replacing two amino acids}
5/021 . . {containing the structure -NH-(X)n-C(=O)-, n being 5 or 6; for n > 6, classification in C07K 5/06 - C07K 5/10, according to the moiety having normal peptide bonds}
5/0212 . . {containing the structure -N-C-N-C(=O)-, e.g. retro-inverso peptides}
5/0215 . . {containing natural amino acids, forming a peptide bond via their side chain functional group, e.g. epsilon-Lys, gamma-Glu}
5/0217 . . {containing the structure -C(=O)-C-N-C(=O)-N-C-C(=O)-}
5/022 . . {containing the structure -X-C(=O)-(C)n-N-C-C(=O)-Y-; X and Y being heteroatoms; n being 1 or 2}
5/0222 . . . {with the first amino acid being heterocyclic, e.g. Pro, Trp}
5/0225 . . {containing the structure -N-C-C(=O)-N-C(=O)-C-N-}
5/0227 . . {containing the (partial) peptide sequence -Phe-His-NH-(X)2-C(=O)-, e.g. Renin-inhibitors with n = 2 - 6; for n > 6 see C07K 5/06 - C07K 5/10}
5/04 . containing only normal peptide links

NOTE

In groups C07K 5/06 - C07K 5/10 the following terms or expressions are used with the meaning indicated:

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neutral:        amino acids
having in the sidechain the
same number of amino groups
and carboxylic acid groups or
derivatives thereof, e.g. Gly;

basic:          amino acids
having in the sidechain more
amino groups than carboxylic acid
groups or derivatives thereof,
e.g. Arg;

acidic:         amino acids
having in the sidechain more
carboxylic acid groups or
derivatives thereof than amino
groups, e.g. Asp;

aliphatic:      amino acids
having only acyclic carbon atoms
in the sidechain, e.g. Ala

aromatic;

cycloaliphatic: amino acids
having a carbocyclic ring in the
sidechain, e.g. Phe

heterocyclic:   amino acids
wherein the sidechain contains
or is part of a heteroring, e.g.
Pro;

side chain:     the R radical
in the optionally functionalised
amino acid R-CH(NH2)C02H)
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5/06 . . Dipeptides
5/06008 . . . {with the first amino acid being neutral}
5/06017 . . . . {and aliphatic}
5/06026 . . . . . {the side chain containing 0 or 1 carbon atom, i.e. Gly or Ala}
5/06034 . . . . . {the side chain containing 2 to 4 carbon atoms}
5/06043 . . . . . {Leu-amino acid}
5/06052 . . . . . {Val-amino acid}
5/0606 . . . . . {the side chain containing heteroatoms not provided for by C07K 5/06086 - C07K 5/06139, e.g. Ser, Met, Cys, Thr}
5/06069 . . . . . {Ser-amino acid}
5/06078 . . . . {and aromatic or cycloaliphatic}
5/06086 . . . {with the first amino acid being basic}
5/06095 . . . . {Arg-amino acid}
5/06104 . . . {with the first amino acid being acidic}
5/06113 . . . . {Asp- or Asn-amino acid}
5/06121 . . . . . {the second amino acid being aromatic or cycloaliphatic}
5/0613 . . . . . {Aspartame}
5/06139 . . . {with the first amino acid being heterocyclic}
5/06147 . . . . {and His-amino acid; Derivatives thereof}
5/06156 . . . . {and Trp-amino acid; Derivatives thereof}
5/06165 . . . . {and Pro-amino acid; Derivatives thereof}
5/06173 . . . . {and Glp-amino acid; Derivatives thereof}
5/06182 . . . . {and Pristinamycin II; Derivatives thereof}
5/06191 . . . {containing heteroatoms different from O, S, or N}
5/08 . . Tripeptides
5/0802 . . . {with the first amino acid being neutral}
5/0804 . . . . {and aliphatic}
5/0806 . . . . . {the side chain containing 0 or 1 carbon atoms, i.e. Gly, Ala}
5/0808 . . . . . {the side chain containing 2 to 4 carbon atoms, e.g. Val, Ile, Leu}
5/081 . . . . . {the side chain containing O or S as heteroatoms, e.g. Cys, Ser}
5/0812 . . . . {and aromatic or cycloaliphatic}
5/0815 . . . {with the first amino acid being basic}
5/0817 . . . . {the first amino acid being Arg}
5/0819 . . . {with the first amino acid being acidic}

5/0821 . . . {with the first amino acid being heterocyclic, e.g. His, Pro, Trp}
5/0823 . . . . {and Pro-amino acid; Derivatives thereof}
5/0825 . . . . {and Glp-amino acid; Derivatives thereof}
5/0827 . . . {containing heteroatoms different from O, S, or N}
5/10 . . Tetrapeptides
5/1002 . . . {with the first amino acid being neutral}
5/1005 . . . . {and aliphatic}
5/1008 . . . . . {the side chain containing 0 or 1 carbon atoms, i.e. Gly, Ala}
5/101 . . . . . {the side chain containing 2 to 4 carbon atoms, e.g. Val, Ile, Leu}
5/1013 . . . . . {the side chain containing O or S as heteroatoms, e.g. Cys, Ser}
5/1016 . . . . {and aromatic or cycloaliphatic}
5/1019 . . . {with the first amino acid being basic}
5/1021 . . . {with the first amino acid being acidic}
5/1024 . . . {with the first amino acid being heterocyclic}
5/1027 . . . {containing heteroatoms different from O, S, or N}
5/12 . . Cyclic peptides {with only normal peptide bonds in the ring}

NOTE

Cyclic peptides containing at least one abnormal peptide link are classified as linear peptides

5/123 . . . {Tripeptides}
5/126 . . . {Tetrapeptides}

7/00 Peptides having 5 to 20 amino acids in a fully defined sequence; Derivatives thereof

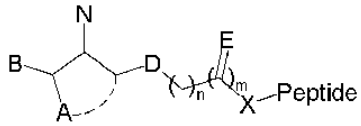
NOTE

In this subgroup cyclic compounds related to specific compounds which are classified in a specific group, e.g. C07K 7/062, are classified in this specific group only

7/02 . Linear peptides containing at least one abnormal peptide link
7/04 . Linear peptides containing only normal peptide links
7/06 . . having 5 to 11 amino acids
7/062 . . . {Serum thymic factor}
7/065 . . . {Thymic humoral factor}
7/067 . . . {Hemoregulatory peptides based on sequence Glp-Glu-Asp-Cys-Lys}
7/08 . . having 12 to 20 amino acids (gastrins C07K 14/595; somatostatins C07K 14/655; melanotropins C07K 14/68)
7/083 . . . {Neurotensin}
7/086 . . . {Bombesin; Related peptides (having more than 20 amino acids C07K 14/57572)}
7/14 . . Angiotensins: Related peptides
7/16 . . Oxytocins; Vasopressins; Related peptides
7/18 . . Kallidins; Bradykinins; Related peptides
7/22 . . {Tachykinins, e.g.} Eledoisins, {Substance P}; Related peptides
7/23 . . Luteinising hormone-releasing hormone [LHRH]; Related peptides
7/28 . . Gramicidins A, B, D; Related peptides
7/50 . Cyclic peptides containing at least one abnormal peptide link
7/52 . . with only normal peptide links in the ring
7/54 . . with at least one abnormal peptide link in the ring
7/56 . . . the cyclisation not occuring through 2,4-diamino-butanoic acid
7/58 . . . . Bacitracins; Related peptides
7/60 . . . the cyclisation occuring through the 4-amino group of 2,4-diamino-butanoic acid
7/62 . . . . Polymyxins; Related peptides
7/64 . Cyclic peptides containing only normal peptide links
7/645 . . {Cyclosporins; Related peptides}
7/66 . . Gramicidins S, C; Tyrocidins A, B, C; Related peptides

9/00 Peptides having up to 20 amino acids, containing saccharide radicals and having a fully defined sequence; Derivatives thereof

9/001 . {the peptide sequence having less than 12 amino acids and not being part of a ring structure}
9/003 . . {Peptides being substituted by heterocyclic radicals, e.g. bleomycin, phleomycin}
9/005 . . {containing within the molecule the substructure with m, n > 0 and m+n > 0, A, B, D, E being heteroatoms; X being a bond or a chain, e.g. muramylpeptides}



9/006 . {the peptide sequence being part of a ring structure}
9/008 . . {directly attached to a hetero atom of the saccharide radical, e.g. actaplanin, avoparcin, ristomycin, vancomycin}

11/00 Depsipeptides having up to 20 amino acids in a fully defined sequence; Derivatives thereof

11/02 . cyclic, e.g. valinomycins {Derivatives thereof}

14/00 Peptides having more than 20 amino acids; Gastrins; Somatostatins; Melanotropins; Derivatives thereof

14/001 . {by chemical synthesis}
14/003 . . {Peptide-nucleic acids (PNAs)}
14/005 . from viruses

NOTE

When classifying in this group, subject-matter related to viral proteins shall be classified by the symbol C07K 14/005 together with (a number of) appropriate indexing codes out of C12N 2710/00-C12N 2795/00

WARNING

1. From March 15, 2012 groups C07K 14/01 - C07K 14/19 and subgroups thereof are no longer used for the classification of new documents. 2. Reclassification of the back-file follows the principle outlined in the Note here above

14/01 . . DNA viruses
14/015 . . . Parvoviridae, e.g. feline panleukopenia virus, human parvovirus
14/02 . . . Hepadnaviridae, e.g. hepatitis B virus

14/025 . . . Papovaviridae, e.g. papillomavirus, polyomavirus, SV40, BK virus, JC virus
14/03 . . . Herpetoviridae, e.g. pseudorabies virus
14/032 . . . . {Pseudorabies virus, i.e. Anjetzky virus}
14/035 . . . . Herpes simplex virus I or II
14/04 . . . . Varicella-zoster virus
14/045 . . . . . Cytomegalovirus
14/05 . . . . Epstein-Barr virus
14/055 . . . . Marek's disease virus
14/06 . . . . Infectious bovine rhinotracheitis virus
14/065 . . . Poxviridae, e.g. avipoxvirus
14/07 . . . . Vaccinia virus; Variola virus
14/075 . . . Adenoviridae
14/08 . . RNA viruses
14/082 . . . {Arteriviridae, e.g. EAV, PRRSV}
14/085 . . . Picornaviridae, e.g. coxsackie virus, echovirus, enterovirus
14/09 . . . . Foot-and-mouth disease virus
14/095 . . . . Rhinovirus
14/10 . . . . Hepatitis A virus
14/105 . . . . Poliovirus
14/11 . . . Orthomyxoviridae, e.g. influenza virus
14/115 . . . Paramyxoviridae, e.g. parainfluenza virus
14/12 . . . . Mumps virus; Measles virus
14/125 . . . . Newcastle disease virus
14/13 . . . . Canine distemper virus
14/135 . . . . Respiratory syncytial virus
14/14 . . . Reoviridae, e.g. rotavirus, bluetongue virus, Colorado tick fever virus
14/145 . . . Rhabdoviridae, e.g. rabies virus, Duvenhage virus, Mokda virus, vesicular stomatitis virus
14/15 . . . Retroviridae, e.g. bovine leukaemia virus, feline leukaemia virus human T-cell leukaemia-lymphoma virus
14/155 . . . . Lentiviridae, e.g. visna-maedi virus, equine infectious virus, FIV, SIV
14/16 . . . . . HIV-1; {HIV-2}
14/161 . . . . . {gag-pol, e.g. p55, p24/25, p17/18, p7, p6, p66/68, p51/52, p31/34, p32, p40}
14/162 . . . . . {env, e.g. gp160, gp110/120, gp41, V3, peptid T, CD4-Binding site}
14/163 . . . . . {Regulatory proteins, e.g. tat, nef, rev, vif, vpu, vpr, vpt, vpx}
14/165 . . . Coronaviridae, e.g. avian infectious bronchitis virus
14/17 . . . . Porcine transmissible gastroenteritis virus
14/175 . . . Bunyaviridae, e.g. California encephalitis virus, Rift valley fever virus, Hantaan virus
14/18 . . . Togaviridae; {Flaviviridae}
14/1808 . . . . {Alphaviruses or Group A arboviruses, e.g. sindbis, VEE, EEE, WEE, semliki forest virus (rubella virus C07K 14/19)}
14/1816 . . . . {Flaviviridae, e.g. pestivirus, mucosal disease virus, bovine viral diarrhoea virus, classical swine fever virus (hog cholera virus), border disease virus}
14/1825 . . . . . {Flaviviruses or Group B arboviruses, e.g. yellow fever virus, japanese encephalitis, tick-borne encephalitis, dengue}
14/1833 . . . . . {Hepatitis C; Hepatitis NANB}
14/1841 . . . . . {Hepatitis G; Hepatitis NANBNCNDNE}
14/19 . . . . Rubella virus

14/195 . from bacteria

NOTE

In groups C07K 14/20 - C07K 14/365, where appropriate, after the bacteria terminology, the indication of the order (O), family (F) or genus (G) of the bacteria is given in brackets.

14/20 . . from Spirochaetales (O), e.g. Treponema, Leptospira
14/205 . . from Campylobacter (G)
14/21 . . from Pseudomonadaceae (F)
14/212 . . . {Moraxellaceae, e.g. Acinetobacter, Moraxella, Oligella, Psychrobacter}
14/215 . . from Halobacteriaceae (F)
14/22 . . from Neisseriaceae (F)
14/225 . . from Alcaligenes (G)
14/23 . . from Brucella (G)
14/235 . . from Bordetella (G)
14/24 . . from Enterobacteriaceae (F), e.g. Citrobacter, Serratia, Proteus, Providencia, Morganella, Yersinia
14/245 . . . Escherichia (G)
14/25 . . . Shigella (G)
14/255 . . . Salmonella (G)
14/26 . . . Klebsiella (G)
14/265 . . . Enterobacter (G)
14/27 . . . Erwinia (G)
14/275 . . . Hafnia (G)
14/28 . . from Vibrionaceae (F)
14/285 . . from Pasteurellaceae (F), e.g. Haemophilus influenza
14/29 . . from Richettsiales (o)
14/295 . . from Chlamydiales (o)
14/30 . . from Mycoplasmatales, e.g. Pleuropneumonia-like organisms [PPLO]
14/305 . . from Micrococcaceae (F)
14/31 . . . from Staphylococcus (G)
14/315 . . from Streptococcus (G), e.g. Enterococci
14/3153 . . . {Streptokinase}
14/3156 . . . {from Streptococcus pneumoniae (Pneumococcus) (Streptokinase C07K 14/3153)}
14/32 . . from Bacillus (G)
14/325 . . . Bacillus thuringiensis crystal protein (delta-endotoxin)
14/33 . . from Clostridium (G)
14/335 . . from Lactobacillus (G)
14/34 . . from Corynebacterium (G)
14/345 . . from Brevibacterium (G)
14/35 . . from Mycobacteriaceae (F)
14/355 . . from Nocardia (G)
14/36 . . from Actinomyces; from Streptomyces (G)
14/365 . . from Actinoplanes (G)
14/37 . from fungi
14/375 . . from Basidiomycetes
14/38 . . from Aspergillus
14/385 . . from Penicillium
14/39 . . from yeasts
14/395 . . . from Saccharomyces
14/40 . . . from Candida
14/405 . from algae
14/41 . from lichens

14/415 . from plants
14/42 . . Lectins, e.g. concanavalin, phytohaemagglutinin
14/425 . . Zeins
14/43 . . {Sweetening agents, e.g.} thaumatin, {monellin}
14/435 . from animals; from humans
14/43504 . . {from invertebrates}
14/43509 . . . {from crustaceans}
14/43513 . . . {from arachnidae}
14/43518 . . . . {from spiders}
14/43522 . . . . {from scorpions}
14/43527 . . . . {from ticks}
14/43531 . . . . {from mites}
14/43536 . . . {from worms}
14/4354 . . . . {from nematodes}
14/43545 . . . . . {from Caenorhabditis}
14/4355 . . . . {from cestodes}
14/43554 . . . . . {from Taenia}
14/43559 . . . . {from trematodes}
14/43563 . . . {from insects}
14/43568 . . . . {from wasps}
14/43572 . . . . {from bees}
14/43577 . . . . {from flies}
14/43581 . . . . . {from Drosophila}
14/43586 . . . . {from silkworms}
14/4359 . . . . {from fleas}
14/43595 . . . {from coelenteratae, e.g. medusae}
14/44 . . from protozoa
14/445 . . . Plasmodium
14/45 . . . Toxoplasma
14/455 . . . Eimeria
14/46 . . from vertebrates
14/461 . . . {from fish}
14/463 . . . {from amphibians}
14/465 . . . from birds
14/47 . . . from mammals
14/4701 . . . . {not used}
14/4702 . . . . . {Regulators; Modulating activity}
14/4703 . . . . . {Inhibitors; Supressors}
14/4705 . . . . . {stimulating, promoting or activating activity}
14/4706 . . . . . {Guanosine triphosphatase activating protein, GAP}
14/4707 . . . . . {Muscular dystrophy}
14/4708 . . . . . {Duchenne dystrophy}
14/471 . . . . . {Myotonic dystrophy}
14/4711 . . . . . {Alzheimer's disease; Amyloid plaque core protein}
14/4712 . . . . . {Cystic fibrosis}
14/4713 . . . . . {Autoimmune diseases, e.g. Insulin-dependent diabetes mellitus, multiple sclerosis, rheumathoid arthritis, systemic lupus erythematosus; Autoantigens}
14/4715 . . . . . {Pregnancy proteins, e.g. placenta proteins, alpha-feto-protein, pregnancy specific beta glycoprotein}
14/4716 . . . . . {Muscle proteins, e.g. myosin, actin}
14/4717 . . . . . {Plasma globulins, lactoglobulin}
14/4718 . . . . . {Cytokine-induced proteins}
14/472 . . . . . {Complement proteins, e.g. anaphylatoxin, C3a, C5a}
14/4721 . . . . . {Lipocortins}
14/4722 . . . . . {G-proteins}
14/4723 . . . . . {Cationic antimicrobial peptides, e.g. defensins}
14/4725 . . . . . {Proteoglycans, e.g. aggreccan}
14/4726 . . . . . {Lectins}
14/4727 . . . . . {Mucins, e.g. human intestinal mucin}
14/4728 . . . . . {Calcium binding proteins, e.g. calmodulin}
14/473 . . . . . {alpha-Glycoproteins}
14/4731 . . . . . {Recognins, e.g. malignin}
14/4732 . . . . . {Casein (in foodstuffs A23J)}
14/4733 . . . . . {Acute pancreatitis-associated protein}
14/4735 . . . . . {Villin}
14/4736 . . . . . {Retinoblastoma protein}
14/4737 . . . . . {C-reactive protein}
14/4738 . . . . . {Cell cycle regulated proteins, e.g. cyclin, CDC, INK-CCR (cell cycle dependent kinases C12N 9/12)}
14/474 . . . . . {Pancreatic thread protein; Reg protein}
14/4741 . . . . . {Keratin; Cytokeratin}
14/4742 . . . . . {Bactericidal/Permeability-increasing protein [BPI]}
14/4743 . . . . . {Insulin-like growth factor binding protein}
14/4745 . . . . . {Cancer-associated SCM-recognition factor, CRISPP}
14/4746 . . . . . {p53}
14/4747 . . . . . {Apoptosis related proteins}
14/4748 . . . . . {Tumour specific antigens; Tumour rejection antigen precursors [TRAP], e.g. MAGE}
14/475 . . Growth factors; Growth regulators
14/4753 . . . {Hepatocyte growth factor; Scatter factor; Tumor cytotoxic factor II}
14/4756 . . . {Neuregulins, i.e. p185erbB2 ligands, glial growth factor, heregulin, ARIA, neu differentiation factor}
14/48 . . . Nerve growth factor [NGF]
14/485 . . . Epidermal growth factor [EGF] (urogastrone)
14/49 . . . Platelet-derived growth factor [PDGF]
14/495 . . . Transforming growth factor [TGF]
14/50 . . . Fibroblast growth factors [FGF]
14/501 . . . . {acidic FGF [aFGF]}
14/503 . . . . {basic FGF [bFGF]}
14/505 . . . Erythropoietin [EPO]
14/51 . . . Bone morphogenetic factor; Osteogenins; Osteogenic factor; Bone-inducing factor
14/515 . . . Angiogenesic factors; Angiogenin
14/52 . . Cytokines; Lymphokines; Interferons
14/521 . . . {Chemokines}
14/522 . . . . {Alpha-chemokines, e.g. NAP-2, ENA-78, GRO-alpha/MGSA/NAP-3, GRO-beta/MIP-2alpha, GRO-gamma/MIP-2beta, IP-10, GCP-2, MIG, PBSF, PF-4, KC}
14/523 . . . . {Beta-chemokines, e.g. RANTES, I-309/TCA-3, MIP-1alpha, MIP-1beta/ACT-2/LD78/SCIF, MCP-1/MCAF, MCP-2, MCP-3, LDCF-1, LDCF-2}
14/524 . . . {Thrombopoietin, i.e. C-MPL ligand}
14/525 . . . Tumor necrosis factor [TNF]
14/5255 . . . . {Lymphotoxin [LT]}
14/53 . . . Colony-stimulating factor [CSF]
14/535 . . . . Granulocyte CSF; Granulocyte-macrophage CSF

14/54 . . . Interleukins [IL]
14/5403 . . . . {IL-3}
14/5406 . . . . {IL-4}
14/5409 . . . . {IL-5}
14/5412 . . . . {IL-6}
14/5415 . . . . {Leukaemia inhibitory factor [LIF]}
14/5418 . . . . {IL-7}
14/5421 . . . . {IL-8}
14/5425 . . . . {IL-9}
14/5428 . . . . {IL-10}
14/5431 . . . . {IL-11}
14/5434 . . . . {IL-12}
14/5437 . . . . {IL-13}
14/544 . . . . {IL-14}
14/5443 . . . . {IL-15}
14/5446 . . . . {IL-16}
14/545 . . . . IL-1
14/55 . . . . IL-2
14/555 . . . Interferons [IFN]
14/56 . . . . IFN-alpha
14/565 . . . . IFN-beta
14/57 . . . . IFN-gamma
14/575 . . Hormones (derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin C07K 14/665, e.g. corticotropin C07K 14/695)
14/57509 . . . {Corticotropin releasing factor [CRF] (Urotensin)}
14/57518 . . . {Placental lactogen; Chorionic somatomammotropin}
14/57527 . . . {Calcitonin gene related peptide}
14/57536 . . . {Endothelin, vasoactive intestinal contractor [VIC]}
14/57545 . . . {Neuropeptide Y}
14/57554 . . . {Prolactin}
14/57563 . . . {Vasoactive intestinal peptide [VIP]; Related peptides}
14/57572 . . . {Gastrin releasing peptide (bombesin C07K 7/086)}
14/57581 . . . {Thymosin; Related peptides}
14/5759 . . . {Products of obesity genes, e.g. leptin, obese (OB), tub, fat}
14/58 . . . Atrial natriuretic factor complex; Atriopeptin; Atrial natriuretic peptide [ANP]; Cardionatrin; Cardiodilatin
14/582 . . . . {at least 1 amino acid in D-form}
14/585 . . . Calcitonins
14/5855 . . . . {at least 1 amino acid in D-form}
14/59 . . . Follicle-stimulating hormone [FSH]; Chorionic gonadotropins, e.g. HCG; Luteinising hormone [LH]; Thyroid-stimulating hormone [TSH]
14/592 . . . . {at least 1 amino acid in D-form}
14/595 . . . Gastrins; Cholecystokinins [CCK]
14/5955 . . . . {at least 1 amino acid in D-form}
14/60 . . . Growth-hormone releasing factors (GH-RF) (Somatoliberin)
14/605 . . . Glucagons
14/61 . . . Growth hormones [GH] (Somatotropin)
14/615 . . . . Extraction from natural sources
14/62 . . . Insulins
14/622 . . . . {at least 1 amino acid in D-form}
14/625 . . . . extraction from natural sources
14/63 . . . Motilins
14/635 . . . Parathyroid hormone (parathormone); Parathyroid hormone-related peptides
14/64 . . . Relaxins
14/645 . . . Secretins
14/65 . . . Insulin-like growth factors (Somatomedins), e.g. IGF-1, IGF-2
14/655 . . . Somatostatins
14/6555 . . . . {at least 1 amino acid in D-form}
14/66 . . . Thymopoietins
14/662 . . . . {at least 1 amino acid in D-form}
14/665 . . derived from pro-opiomelanocortin, pro-enkephalin or pro-dynorphin
14/67 . . . Lipotropins, e.g. beta, gamma lipotropin
14/672 . . . . {with at least 1 amino acid in D-form}
14/675 . . . beta-Endorphins
14/6755 . . . . {with at least 1 amino acid in D-form}
14/68 . . . Melanocyte-stimulating hormone [MSH]
14/685 . . . . alpha-Melanotropin
14/69 . . . . beta-Melanotropin
14/695 . . . Corticotropin [ACTH]
14/6955 . . . . {with at least 1 amino acid in D-form}
14/70 . . . Enkephalins
14/702 . . . . {with at least 1 amino acid in D-form}
14/705 . . Receptors; Cell surface antigens; Cell surface determinants {(tumour specific antigens C07K 14/4748)}
14/70503 . . . {Immunoglobulin superfamily}
14/70507 . . . . {CD2}
14/7051 . . . . {T-cell receptor (TcR)-CD3 complex}
14/70514 . . . . {CD4}
14/70517 . . . . {CD8}
14/70521 . . . . {CD28, CD152}
14/70525 . . . . {ICAM molecules, e.g. CD50, CD54, CD102}
14/70528 . . . . {CD58}
14/70532 . . . . {B7 molecules, e.g. CD80, CD86}
14/70535 . . . . {Fc-receptors, e.g. CD16, CD32, CD64 (CD2314/705F)}
14/70539 . . . . {MHC-molecules, e.g. HLA-molecules}
14/70542 . . . . {CD106}
14/70546 . . . {Integrin superfamily}
14/7055 . . . . {Integrin beta1-subunit-containing molecules, e.g. CD29, CD49}
14/70553 . . . . {Integrin beta2-subunit-containing molecules, e.g. CD11, CD18}
14/70557 . . . . {Integrin beta3-subunit-containing molecules, e.g. CD41, CD51, CD61}
14/7056 . . . {Lectin superfamily, e.g. CD23, CD72}
14/70564 . . . . {Selectins, e.g. CD62}
14/70567 . . . {Nuclear receptors, e.g. retinoic acid receptor [RAR], RXR, nuclear orphan receptors}
14/70571 . . . {for neuromediators, e.g. serotonin receptor, dopamine receptor}
14/70575 . . . {NGF/TNF-superfamily, e.g. CD70, CD95L, CD153, CD154 (NGF C07K 14/48, TNF C07K 14/525)}
14/70578 . . . {NGF-receptor/TNF-receptor superfamily, e.g. CD27, CD30, CD40, CD95 (NGF-receptor C07K 14/71, TNF-receptor C07K 14/7151)}
14/70582 . . . {CD71}
14/70585 . . . {CD44}
14/70589 . . . {CD45}
14/70592 . . . {CD52}

14/70596 . . . {Molecules with a "CD"-designation not provided for elsewhere}
14/71 . . . for growth factors; for growth regulators
14/715 . . . for cytokines; for lymphokines; for interferons
14/7151 . . . . {for tumor necrosis factor [TNF], for lymphotoxin [LT]}
14/7153 . . . . {for colony-stimulating factors [CSF]}
14/7155 . . . . {for interleukins [IL]}
14/7156 . . . . {for interferons [IFN]}
14/7158 . . . . {for chemokines}
14/72 . . . for hormones {(for neuromediators C07K 14/70571)}
14/721 . . . . {Steroid/thyroid hormone superfamily, e.g. GR, EcR, androgen receptor, oestrogen receptor}
14/723 . . . . {G protein coupled receptor, e.g. TSHR-thyrotropin-receptor, LH/hCG receptor, FSH receptor}
14/745 . . Blood coagulation or fibrinolysis factors
14/7455 . . . {Thrombomodulin}
14/75 . . . Fibrinogen
14/755 . . . Factors VIII, {e.g. factor VIII C (AHF), factor VIII Ag (VWF)}
14/76 . . Albumins
14/765 . . . Serum albumin, e.g. HSA
14/77 . . . Ovalbumin
14/775 . . Apolipopeptides
14/78 . . Connective tissue peptides, e.g. collagen, elastin, laminin, fibronectin, vitronectin, cold insoluble globulin [CIG]
14/785 . . Alveolar surfactant peptides; Pulmonary surfactant peptides
14/79 . . Transferrins, e.g. lactoferrins, ovotransferrins
14/795 . Porphyrin- or corrin-ring-containing peptides
14/80 . . Cytochromes
14/805 . . Haemoglobins; Myoglobins
14/81 . Protease inhibitors
14/8103 . . {Exopeptidase (E.C. 3.4.11-19) inhibitors}
14/8107 . . {Endopeptidase (E.C. 3.4.21-99) inhibitors}
14/811 . . . {Serine protease (E.C. 3.4.21) inhibitors}
14/8114 . . . . {Kunitz type inhibitors}
14/8117 . . . . . {Bovine/basic pancreatic trypsin inhibitor (BPTI, aprotinin)}
14/8121 . . . . {Serpins}
14/8125 . . . . . {Alpha-1-antitrypsin}
14/8128 . . . . . {Antithrombin III}
14/8132 . . . . . {Plasminogen activator inhibitors}
14/8135 . . . . {Kazal type inhibitors, e.g. pancreatic secretory inhibitor, ovomucoid}
14/8139 . . . {Cysteine protease (E.C. 3.4.22) inhibitors, e.g. cystatin}
14/8142 . . . {Aspartate protease (E.C. 3.4.23) inhibitors, e.g. HIV protease inhibitors}
14/8146 . . . {Metalloprotease (E.C. 3.4.24) inhibitors, e.g. tissue inhibitor of metallo proteinase, TIMP}
14/815 . . from leeches, e.g. hirudin, eglin
14/82 . Translation products from oncogenes
14/825 . Metallothioneins

16/00 Immunoglobulins [IGs], e.g. monoclonal or polyclonal antibodies {(antibodies with enzymatic activity, e.g. abzymes C12N 9/0002)}

NOTES

1. Documents characterised by the technical aspects of the construction of an antibody or fragment thereof, should be classified in C07K 16/00 - C07K 16/065 or C07K 16/46 - C07K 16/468

2. Documents not characterised by the technical aspects of the construction of an antibody or fragment thereof, should be classified only according to their specificity, where necessary accompanied by one or more appropriate indexing codes

16/005 . {constructed by phage libraries}
16/02 . from eggs
16/04 . from milk
16/06 . from serum
16/065 . . {Purification, fragmentation}
16/08 . against material from viruses
16/081 . . {from DNA viruses}
16/082 . . . {Hepadnaviridae, e.g. hepatitis B virus}
16/084 . . . {Papovaviridae, e.g. papillomavirus, polyomavirus, SV40, BK virus, JC virus}
16/085 . . . {Herpetoviridae, e.g. pseudorabies virus, Epstein-Barr virus}
16/087 . . . . {Herpes simplex virus}
16/088 . . . . {Varicella-zoster virus, e.g. cytomegalovirus}
16/10 . . from RNA viruses, {e.g. hepatitis E virus}
16/1009 . . . {Picornaviridae, e.g. hepatitis A virus}
16/1018 . . . {Orthomyxoviridae, e.g. influenza virus}
16/1027 . . . {Paramyxoviridae, e.g. respiratory syncytial virus}
16/1036 . . . {Retroviridae, e.g. leukemia viruses}
16/1045 . . . . {Lentiviridae, e.g. HIV, FIV, SIV}
16/1054 . . . . . {gag-pol, e.g. p17, p24}
16/1063 . . . . . {env, e.g. gp41, gp110/120, gp160, V3, PND, CD4 binding site}
16/1072 . . . . . {Regulatory proteins, e.g. tat, rev, vpt}
16/1081 . . . {Togaviridae, e.g. flavivirus, rubella virus, hog cholera virus}
16/109 . . . . {Hepatitis C virus; Hepatitis G virus}
16/12 . against material from bacteria
16/1203 . . {from Gram-negative bacteria}
16/1207 . . . {from Spirochaetales (O), e.g. Treponema, Leptospira}
16/121 . . . {from Helicobacter (Campylobacter) (G)}
16/1214 . . . {from Pseudomonadaceae (F)}
16/1217 . . . {from Neisseriaceae (F), e.g. Acinetobacter}
16/1221 . . . {from Brucella (G)}
16/1225 . . . {from Bordetella (G)}
16/1228 . . . {from Enterobacteriaceae (F), e.g. Citrobacter, Serratia, Proteus, Providencia, Morganella, Yersinia}
16/1232 . . . . {from Escherichia (G)}
16/1235 . . . . {from Salmonella (G)}
16/1239 . . . {from Vibrionaceae (G)}
16/1242 . . . {from Pasteurellaceae (F), e.g. Haemophilus influenza}

16/1246 . . . {from Rickettsiales (O)}
16/125 . . . {from Chlamydiales (O)}
16/1253 . . . {from Mycoplasmatales, e.g. Pleuropneumonia-like organisms [PPLO]}
16/1257 . . . {from Bacteridaceae (F)}
16/126 . . . {from Legionella (G)}
16/1264 . . . {from Rhizobiaceae (F)}
16/1267 . . {from Gram-positive bacteria}
16/1271 . . . {from Micrococcaceae (F), e.g. Staphylococcus}
16/1275 . . . {from Streptococcus (G)}
16/1278 . . . {from Bacillus (G)}
16/1282 . . . {from Clostridium (G)}
16/1285 . . . {from Corynebacterium (G)}
16/1289 . . . {from Mycobacteriaceae (F)}
16/1292 . . . {from Actinomyces; from Streptomyces (G)}
16/1296 . . . {from Listeria}
16/14 . against material from fungi, algea or lichens
16/16 . against material from plants
16/18 . against material from animals or humans
16/20 . . from protozoa
16/205 . . . {Plasmodium}
16/22 . . against growth factors; {against growth regulators}
16/24 . . against cytokines, lymphokines or interferons
16/241 . . . {Tumor Necrosis Factors}
16/242 . . . . {Lymphotoxin [LT]}
16/243 . . . {Colony Stimulating Factors}
16/244 . . . {Interleukins [IL]}
16/245 . . . . {IL-1}
16/246 . . . . {IL-2}
16/247 . . . . {IL-4}
16/248 . . . . {IL-6}
16/249 . . . {Interferons}
16/26 . . against hormones; {against hormone releasing or inhibiting factors}
16/28 . . against receptors, cell surface antigens or cell surface determinants
16/2803 . . . {against the immunoglobulin superfamily}
16/2806 . . . . {against CD2}
16/2809 . . . . {against the T-cell receptor (TcR)-CD3 complex}
16/2812 . . . . {against CD4}
16/2815 . . . . {against CD8}
16/2818 . . . . {against CD28 or CD152}
16/2821 . . . . {against ICAM molecules, e.g. CD50, CD54, CD102}
16/2824 . . . . {against CD58}
16/2827 . . . . {against B7 molecules, e.g. CD80, CD86}
16/283 . . . . {against Fc-receptors, e.g. CD16, CD32, CD64 (CD23 C07K 16/2851)}
16/2833 . . . . {against MHC-molecules, e.g. HLA-molecules}
16/2836 . . . . {against CD106}
16/2839 . . . {against the integrin superfamily}
16/2842 . . . . {against integrin beta1-subunit-containing molecules, e.g. CD29, CD49}
16/2845 . . . . {against integrin beta2-subunit-containing molecules, e.g. CD11, CD18}
16/2848 . . . . {against integrin beta3-subunit-containing molecules, e.g. CD41, CD51, CD61}
16/2851 . . . {against the lectin superfamily, e.g. CD23, CD72}
16/2854 . . . . {against selectins, e.g. CD62}
16/2857 . . . {against nuclear receptors, e.g. retinoic acid receptor [RAR], RXR, orphan receptor}
16/286 . . . {against neuromediator receptors, e.g. serotonin receptor, dopamine receptor}
16/2863 . . . {against receptors for growth factors, growth regulators}
16/2866 . . . {against receptors for cytokines, lymphokines, interferons}
16/2869 . . . {against hormone receptors (for antibodies against neuromediator receptors C07K 16/286)}
16/2872 . . . {against prion molecules, e.g. CD230}
16/2875 . . . {against the NGF/TNF superfamily, e.g. CD70, CD95L, CD153, CD154 (against NGF C07K 16/22, against TNF C07K 16/241)}
16/2878 . . . {against the NGF-receptor/TNF-receptor superfamily, e.g. CD27, CD30, CD40, CD95}
16/2881 . . . {against CD71}
16/2884 . . . {against CD44}
16/2887 . . . {against CD20}
16/289 . . . {against CD45}
16/2893 . . . {against CD52}
16/2896 . . . {against molecules with a "CD"-designation, not provided for elsewhere}
16/30 . . . from tumour cells
16/3007 . . . . {Carcino-embryonic Antigens}
16/3015 . . . . {Breast}
16/3023 . . . . {Lung}
16/303 . . . . {Liver or Pancreas}
16/3038 . . . . {Kidney, bladder}
16/3046 . . . . {Stomach, Intestines}
16/3053 . . . . {Skin, nerves, brain}
16/3061 . . . . {Blood cells}
16/3069 . . . . {Reproductive system, e.g. ovaria, uterus, testes, prostate}
16/3076 . . . . {against structure-related tumour-associated moieties}
16/3084 . . . . . {against tumour-associated gangliosides}
16/3092 . . . . . {against tumour-associated mucins}
16/32 . . against translation products of oncogenes
16/34 . . against blood group antigens
16/36 . . against blood coagulation factors
16/38 . against protease inhibitors of peptide structure
16/40 . against enzymes
16/42 . against immunoglobulins
16/4208 . . {against an idiotypic determinant on Ig}
16/4216 . . . {against anti-viral Ig}
16/4225 . . . . {against anti-HIV Ig}
16/4233 . . . {against anti-bacterial Ig}
16/4241 . . . {against anti-human or anti-animal Ig}
16/425 . . . . {against anti-protozoal Ig}
16/4258 . . . . {against anti-receptor Ig}
16/4266 . . . . . {against anti-tumor receptor Ig}
16/4275 . . . . . {against anti-CD4 Ig}
16/4283 . . {against an allotypic or isotypic determinant on Ig}
16/4291 . . . {against IgE}
16/44 . against material not provided for elsewhere, {e.g. haptens, metals, DNA, RNA, amino acids}

16/46 . Hybrid immunoglobulins (hybrids of an immunoglobulin with a peptide not being an immunoglobulin C07K 19/00)
16/461 . . {Igs containing Ig-regions, -domains or -residues form different species}
16/462 . . . {Igs containing a variable region (Fv) from one specie and a constant region (Fc) from another}
16/464 . . . {Igs containing CDR-residues from one specie grafted between FR-residues from another}
16/465 . . . . {with additional modified FR-residues}
16/467 . . . {Igs with modifications in the FR-residues only}
16/468 . . {Immunoglobulins having two or more different antigen binding sites, e.g. multifunctional antibodies}

17/00 Carrier-bound or immobilised peptides (carrier-bound or immobilised enzymes C12N 11/00)**; Preparation thereof**
17/02 . Peptides being immobilised on, or in, an organic carrier
17/04 . . entrapped within the carrier, e.g. gel, hollow fibre
17/06 . . attached to the carrier via a bridging agent
17/08 . . the carrier being a synthetic polymer
17/10 . . the carrier being a carbohydrate
17/12 . . . Cellulose or derivatives thereof
17/14 . Peptides being immobilised on, or in, an inorganic carrier

19/00 Hybrid peptides

2299/00 Coordinates from 3D structures of peptides, e.g. proteins or enzymes

2316/00 Immunoglobulins specific feautures
2316/50 . Immunoglobulins characterised by their fragments
2316/52 . . Constant or Fc region
2316/95 . Antibodies with agonistic, e.g. apoptotic, activity upon their specific binding to an antigen
2316/96 . Antibodies with antagonisticactivity upon their specific binding to an antigen

2317/00 Immunoglobulins specific feautures
2317/10 . characterized by their source of isolation or production
2317/11 . . isolated from eggs
2317/12 . . isolated from milk
2317/13 . . isolated from plants
2317/14 . . Specific host cells or culture conditions, e.g. components, pH or temperature
2317/20 . characterized by taxonomic origin
2317/21 . . from primates, e.g. man
2317/22 . . from camelids, e.g. camel, llama or dromedary
2317/23 . . from birds
2317/24 . . containing regions, domains or residues from different species, e.g. chimeric, humanized or veneered
2317/30 . characterized by aspects of specificity or valency
2317/31 . . multispecific
2317/32 . . specific for a neo-epitope on a complex, e.g. antibody-antigen or ligand-receptor
2317/33 . . Crossreactivity, e.g. for species or epitope, or lack of said crossreactivity
2317/34 . . Identification of a linear epitope shorter than 20 amino acid residues or of a conformational epitope defined by amino acid residues
2317/35 . . Valency
2317/40 . characterized by post-translational modification
2317/41 . . Glycosylation, sialylation, or fucosylation
2317/50 . characterized by immunoglobulin fragments
2317/51 . . Complete heavy chain or Fd fragment, i.e. VH + CH1
2317/515 . . Complete light chain, i.e. VL + CL
2317/52 . . Constant or Fc region; Isotype
2317/522 . . . CH1 domain
2317/524 . . . CH2 domain
2317/526 . . . CH3 domain
2317/528 . . . CH4 domain
2317/53 . . . Hinge
2317/54 . . F(ab')2
2317/55 . . Fab or Fab'
2317/56 . . variable (Fv) region, i.e. VH and/or VL
2317/565 . . . Complementarity determining region [CDR]
2317/567 . . . Framework region [FR]
2317/569 . . . Single domain, e.g. dAb, sdAb, VHH, VNAR or nanobody®
2317/60 . characterized by non-natural combinations of immunoglobulin fragments
2317/62 . . comprising only variable region components
2317/622 . . . Single chain antibody (scFv)
2317/624 . . . Disulfide-stabilized antibody (dsFv)
2317/626 . . . Diabody or triabody
2317/64 . . comprising a combination of variable region and constant region components
2317/66 . . comprising a swap of domains, e.g. CH3-CH2, VH-CL or VL-CH1
2317/70 . characterized by effect upon binding to a cell or to an antigen
2317/71 . . Decreased effector function due to an Fc-modification
2317/72 . . Increased effector function due to an Fc-modification
2317/73 . . Inducing cell death, e.g. apoptosis, necrosis or inhibition of cell proliferation
2317/732 . . . Antibody-dependent cellular cytotoxicity [ADCC]
2317/734 . . . Complement-dependent cytotoxicity [CDC]
2317/74 . . Inducing cell proliferation
2317/75 . . Agonist effect on antigen
2317/76 . . Antagonist effect on antigen, e.g. neutralization or inhibition of binding
2317/77 . . Internalization into the cell
2317/80 . remaining in the (producing) cell, i.e. intracellular antibodies or intrabodies
2317/81 . . functional in the endoplasmatic reticulum [ER] or the Golgi apparatus
2317/82 . . functional in the cytoplasm, the inner aspect of the cell membrane, the nucleus or the mitochondria
2317/90 . characterized by (pharmaco)kinetic aspects or by stability of the immunoglobulin
2317/92 . . Affinity (KD), association rate (Ka), dissociation rate (Kd) or EC50 value
2317/94 . . Stability, e.g. half-life, pH, temperature or enzyme-resistance

2318/00 Antibody mimetics or scaffolds

2318/10 . Immunoglobulin or domain(s) thereof as scaffolds for inserted non-Ig peptide sequences, e.g. for vaccination purposes

2318/20 . Antigen-binding scaffold molecules wherein the scaffold is not an immunoglobulin variable region or antibody mimetics

2319/00 Fusion polypeptide

2319/01 . containing a localisation/targetting motif

2319/02 . . containing a signal sequence

2319/03 . . containing a transmembrane segment

2319/033 . . containing a motif for targeting to the internal surface of the plasma membrane, e.g. containing a myristoylation motif

2319/034 . . containing a motif for targeting to the periplasmic space of Gram negative bacteria as a soluble protein, i.e. signal sequence should be cleaved

2319/035 . . containing a signal for targeting to the external surface of a cell, e.g. to the outer membrane of Gram negative bacteria, GPI- anchored eukaryote proteins

2319/036 . . targeting to the medium outside of the cell, e.g. type III secretion

2319/04 . . containing an ER retention signal such as a C-terminal HDEL motif

2319/05 . . containing a GOLGI retention signal

2319/055 . . containing a signal for localisation to secretory granules (for exocytosis)

2319/06 . . containing a lysosomal/endosomal localisation signal

2319/07 . . containing a mitochondrial localisation signal

2319/08 . . containing a chloroplats localisation signal

2319/09 . . containing a nuclear localisation signal

2319/095 . . containing a nuclear export signal

2319/10 . . containing a tag for extracellular membrane crossing, e.g. TAT or VP22

2319/20 . containing a tag with affinity for a non-protein ligand

2319/21 . . containing a His-tag

2319/22 . . containing a Strep-tag

2319/23 . . containing a GST-tag

2319/24 . . containing a MBP (maltose binding protein)-tag

2319/30 . Non-immunoglobulin-derived peptide or protein having an imunoglobulin constant or Fc region, or a fragment thereof, attached thereto

2319/31 . fusions, other than Fc, for prolonged plasma life, e.g. albumin

2319/32 . fusions with soluble part of a cell surface receptor, "decoy receptors"

2319/33 . fusions for targeting to specific cell types, e.g. tissue specific targeting, targeting of a bacterial subspecies

2319/35 . containing a fusion for enhanced stability/folding during expression, e.g. fusions with chaperones or thioredoxin

2319/40 . containing a tag for immunodetection, or an epitope for immunisation

2319/41 . . containing a Myc-tag

2319/42 . . containing a HA(hemagglutinin)-tag

2319/43 . . containing a FLAG-tag

2319/50 . containing protease site

2319/55 . containing a fusion with a toxin, e.g. diphteria toxin

2319/60 . containing spectroscopic/fluorescent detection, e.g. green fluorescent protein [GFP]

2319/61 . containing an enzyme fusion for detection (lacZ, luciferase)

2319/70 . containing domain for protein-protein interaction

2319/705 . . containing a protein-A fusion

2319/71 . . containing domain for transcriptional activaation, e.g. VP16

2319/715 . . . containing a domain for ligand dependent transcriptional activation, e.g. containing a steroid receptor domain

2319/72 . . containing SH2 domain

2319/73 . . containing coiled-coiled motif (leucine zippers)

2319/735 . . containing a domain for self-assembly, e.g. a viral coat protein (includes phage display)

2319/74 . . containing a fusion for binding to a cell surface receptor

2319/75 . . . containing a fusion for activation of a cell surface receptor, e.g. thrombopoeitin, NPY and other peptide hormones

2319/80 . containing a DNA binding domain, e.g. LacI or Tet-repressor

2319/81 . . containing a Zn-finger domain for DNA binding

2319/85 . containing an RNA binding domain

2319/90 . containing a motif for post-translational modification

2319/91 . . containing a motif for glycosylation

2319/912 . . . containing a GPI (phosphatidyl-inositol glycane) anchor

2319/915 . . containing a motif for acylation

2319/92 . . containing an intein ("protein splicing")domain

2319/95 . containing a motif/fusion for degradation (ubiquitin fusions, PEST sequence)