A61K

PREPARATIONS FOR MEDICAL, DENTAL, OR TOILET PURPOSES

Definition statement

This subclass/group covers:

Preparations for dentistry

Cosmetic or similar toilet preparations

Medicinal preparations

Preparations for testing in vivo

Preparations containing radioactive substances for use in therapy or testing in vivo

This subclass covers, whether set forth as a composition (mixture), process of preparing the composition or process of treating using the composition, drug or other biological compositions which are capable of:

- being used as preparations for dentistry, e.g. for artificial teeth, for filling or for capping teeth, or for taking dental impressions.

- being used for cosmetic purposes for treating the skin, hair, nails, teeth or oral cavity with a view to cleaning them, changing their appearance, correcting body odours, protecting them or keeping them in good condition.

- preventing, alleviating, treating or curing abnormal or pathological conditions of the living body by such means as destroying a parasitic organism, or limiting the effect of the disease or abnormality by chemically altering the physiology of the host or parasite;

- maintaining, increasing, decreasing, limiting, or destroying a physiological body function, e.g. vitamin compositions, sex sterilants, fertility inhibitors, growth promotors, or the like;

- diagnosing a physiological condition or state by an in vivo test, e.g. X -ray contrast or skin patch test compositions;

- Body treating compositions generally intended for deodorising, protecting, adorning or grooming the body, e.g. cosmetics, dentifrices, tooth filling materials.

Relationship between large subject matter areas

A01N covers the preservation of bodies of humans or animals or plants or parts thereof; biocides, e.g. as disinfectants, as pesticides, as herbicides .

Compounds per se are classified in C01C07 or C08.

C08K covers the use of substances as compounding ingredients.

Compositions per se containing polymers are classified in C08L.

Micro-organisms per se are classified in C12N.

(Note: Classification A61K versus A01N: The distinction between classification in A61K and A01N is probably best envisaged in terms of the purpose. Subject-matter classified in A61K imparts a direct benefit to the organism to which it is administered e.g. curative. Subject-matter classified in A01N on the other hand has no benefit to the target organism even though there may well be a secondary benefit to another organism e.g. pesticides in crop protection.)

References relevant to classification in this subclass

This subclass/group does not cover:

Sex sterilants for invertebrates per se	A01N
Artificial nails per se	A45D 31/00
Devices or methods specially adapted for bringing pharmaceutical products into particular physical or administering forms	A61J 3/00
Chemical aspects of, or use of materials for deodorisation of air, for disinfection or sterilisation, or for bandages, dressings, absorbent pads or surgical articles	A61L
Compounds per se	C01, C07, C08, C12N
Essential oils, perfumes	C11B 9/00
Soap compositions	C11D
Micro-organisms per se	C12N

Informative references

Attention is drawn to the following places, which may be of interest for search:

Biocides, pest repellents or attractants per se	A01N 25/00-A01N 65/00

Wigs	A41G 3/00
Hair pieces, inserts, rolls, pads or the like	A41G 5/00
Processes of waving, straightening or curling hair	A45D 7/00
Containers or accessories specially adapted for handling toilet or cosmetic substances	A45D 34/00
Diagnosis; Surgery; Identification	A61B
Dentistry	A61C
Electrotherapy; Magnetotherapy; Radiation therapy; Ultrasound therapy	A61N
Mixing, dissolving, emulsifying, dispersing	B01F
Measuring or testing processes involving enzymes or micro-organisms; Compositions or test papers therefore; Processes of preparing such compositions; Condition-responsive control in microbiological or enzymological processes	C12Q
Investigating or analysing materials by determining their chemical or physical properties	G01N

Special rules of classification within this subclass

- In this subclass, with the exception of group A61K 8/00, in the absence of an indication to the contrary, classification is made in the last appropriate place.

- Attention is drawn to the definitions of groups of chemical elements following the title of section C and to the notes in class C07, for example the notes following the title of the subclass C07D, setting forth the rules for classifying organic compounds in that class, which rules are also applicable, if not otherwise indicated, to the classification of organic compounds in A61K.

-see also "Special rules of classification" at sub-group level.

A61K 6/00

Preparations for dentistry, i.e. for fixing, filling or capping teeth

Definition statement

This subclass/group covers:
Chemical compositions :

- for temporarily or permanently fixing teeth

- for artificial teeth

- for filling or capping teeth

- for dental root treatment

- for taking dental impressions

Relationship between large subject matter areas

Apparatus, devices and methods per se for the application of the dental compositions are classified in the subclasses corresponding to their general function, e.g. impression cups or impression trays (A61C 9/00 or A61C 9/0006); impression methods (A61C 9/00); computer assisted-sizing (A61C 13/0004).

Chemical compounds/compositions per se without claimed use as dental composition are to be primarily classified in the subclasses corresponding to their chemical features (e.g. C07C, C07D, C08L, C04B, etc.), with a secondary classification in A61K 6/00 if the use in a dental treatment is further claimed.

A61K 6/10 covers dental compositions for taking dental impressions. However analysis and determination, detecting (2D or 3D) by using computer imaging methods are classified G06T 19/00.

Images-producing devices are classified in A61B 19/00.

References relevant to classification in this subclass

This subclass/group does not cover:

Preparations for care of the teeth, of the oral cavity or of dentures	A61Q 11/00
Surgical adhesives or cements	A61L 24/00

Ionomer cements, e.g. glass-ionomer cements	A61L 24/12
Dental machines for boring or cutting	A61C 1/00
Dental tools or instruments	A61C 3/00
Filling or capping teeth	A61C 5/00
Orthodontics, e.g. brackets, arch wires, etc.	A61C 7/00
Means to be fixed to the jaw-bone for consolidating natural teeth or for fixing dental prostheses thereon characterised by the material or composition, e.g. ceramics, surface layer, metal alloy	A61C 8/00 A61C 8/0012
Impression cups, impression methods	A61C 9/00
Dental prostheses	A61C 13/00
Computer-assisted sizing	A61C 13/0004
Tools for fastening artificial teeth	A61C 13/12
Fastening of peg-teeth in the mouth	A61C 13/30
Alloys per se	C22C
Cements per se	C04B
Resins compositions per se	C08L
Inorganic or non-macromolecular organic substances as compounding ingredients	C08K
Chemistry: Acyclic or carbocyclic compounds	C07C
Chemistry: Heterocyclic compounds	C07D

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cements per se	C04B
Resins compositions per se	C08L
Impression methods	A61C 9/00
Medical adhesives	A61L 24/12
Dentistry	A61C
Cosmetic or similar toilet preparations	A61K 8/00
Preparations for cleaning teeth or mouth	A61Q 11/00;A61K 8/00
Dental implants (means to be fixed to the jawbone)	A61C 8/00
Chemistry: Acyclic or carbocyclic compounds	C07C
Chemistry: Heterocyclic compounds	C07D

Special rules of classification within the subgroups

In the following groups the focus is on the intended use; the subgroups within a class are used to index further characteristics of the composition:

A61K 6/0023: for temporarily or permanently fixing teeth

A61K 6/0029: as primers

A61K 6/0032: for dental root treatment

A61K 6/02: for artificial teeth, for filling or capping teeth

A61K 6/10: for taking dental impressions

The following groups are used as an indexing scheme to classify further features of the chemical composition:

A61K 6/0002: characterised by physical properties

A61K 6/0047 and A61K 6/007: characterised by the additives

A61K 6/0205: use of ceramics

A61K 6/04: use of metals or alloys

A61K 6/06: use of inorganic cements

A61K 6/08: use of natural or synthetic resins

In groups A61K 6/0023-A61K 6/0044 and A61K 6/083-A61K 6/10 the use of specific polymers is indicated by addition of classification symbols of the subclass C08L, creating the correspondent Combination-set, e.g. compositions for taking dental impressions containing alginates are classified in (A61K 6/10,C08L 5/04).

Further details of subgroups

A61K 6/083:

Polymers obtained by reactions only involving carbon to carbon unsaturated bonds are classified in A61K 6/083 in combination with the C08L subclass identifying the specific monomer; if only the general polymerisation mechanism is characterising, and not a specific monomer, documents are to be classified in A61K 6/083 without combination subclass.

A61K 6/0835:

In the special case of glass ionomer cements, documents are to be classified in the groups A61K 6/0835 (Polycarboxylate cements).

A glass ionomer cement is a dental cement mixture (CaF2-Al2O3-SiO2 + polycarboxylate) of low strength and toughness produced by mixing a powder prepared from a calcium aluminosilicate glass and a liquid prepared from an aqueous solution of polycarboxylates.

A61K 6/087:

Polymers obtained otherwise than by reactions only involving carbon to carbon unsaturated bonds are classified in A61K 6/087 in combination with the C08L subclass identifying the specific polymer; if a variety of polymers is mentioned, no particular type of polymer being characterising, documents are to be classified in A61K 6/087 without combination subclass.

In the special cases of polyurethanes (A61K 6/09), polyorganosilicon compounds (A61K 6/093), polysaccharides (A61K 6/097) documents are to be classified also in said groups.

A61K 6/0002

[N: Compositions characterised by physical properties]

Definition statement

This subclass/group covers:

Compositions characterised by physical properties and physical parameters in general.

Note: For example a composition of a semi-crystalline resin and nano-cluster with the physical property of being self supporting. Furthermore the self-supporting structure has sufficient malleability to be reformed into a second shape, preferably at a temperature of about 15°C to 38°C, more preferably at a temperature of about 20°C to 38°C etc.

(see also special rules section)

References relevant to classification in this group

This subclass/group does not cover:

Chemistry: Acyclic or carbocyclic compounds	C07C
Chemistry: Heterocyclic compounds	C07D
Manipulating 3D models or images for computer graphics	G06T 19/00
Image-producing devices	A61B 19/00N

Special rules of classification within the subgroups

Documents are classified in A61K 6/0002 only if the characterising physical property is other than:

– refractive index (A61K 6/0005),

– particle size (A61K 6/0008),

– retraction (A61K 6/0011: compositions causing retraction are able to widen the sulcus, for making dental impressions or removing teeth)

– self-expansion (A61K 6/0014: compositions having self-expanding properties are able to overcome the effect of polymeric shrinkage);

– protective coating (A61K 6/0017: compositions used for sealing, dye coating, varnish, for natural or artificial teeth);

– detection and measuring (A61K 6/002: compositions for detecting e.g. contact points or irregularities on natural or artificial teeth).

A61K 6/0023

[N: Chemical means for temporarily or permanently fixing teeth, palates or the like]

Definition statement

This subclass/group covers:

Chemical compositions for temporarily or permanently fixing teeth, palates or the like.

References relevant to classification in this group

This subclass/group does not cover:

Preparations for care of the teeth, of the oral cavity or of dentures	A61Q 11/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surgical adhesives or cements	A61L 24/00

Special rules of classification within this group

If the type of polymer is characterising, the adhesives are to be classified in combination with the appropriate C08L subclass for specifying the kind of polymer; adhesives, e.g. using hydroxy cellulose as adhesive : Combination-set (A61K 6/0026,C08L 1/02) ; for the specific use of stabilising dentures in the mouth are to be classified in A61K 6/0026.

A61K 6/0029

[N: Primers (adhesive primers A61K6/0023)]

Definition statement

This subclass/group covers:

Primer compositions used before applying a further material or layer thereon.

A primer is a chemical composition for modifying and pre-treatment of (dental) surfaces, resulting in a preparatory surface modification on materials before further treatment, ensuring better adhesion, but not to be confused with dental adhesives, which are classified in A61K 6/0023.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical means for temporarily or permanently fixing teeth, palates or the like, including adhesive primers	A61K 6/0023

Special rules of classification within this group

Primers are to be classified in combination with the appropriate C08L subclass for specifying the kind of polymer, e.g. a primer composition based on homopolymers or copolymers of methyl methacrylate : Combination-set (A61K 6/0029,C08L 33/12); if the kind of polymer is not characterising they are to be classified in the group A61K 6/0029.

A61K 6/0032

[N: Use of preparations for dental root treatment]

Definition statement

This subclass/group covers:

Chemical compositions for the treatment of the root canal::

- for cleaning or disinfecting

- for filling or sealing

- for apical treatment

- and in combination with dental implants

Special rules of classification within this group

Documents are to be classified in the group A61K 6/0032 only if the type of dental root treatment is other than:

Cleaning, Disinfecting (A61K 6/0035),

Filling, Sealing (A61K 6/0038),

Apical treatment (A61K 6/0041),

Dental root treatment in combination with dental implants (A61K 6/0044).

A61K 6/0047

[N: Preparations for dentistry characterized by the presence of organic or organo-metallic additives]

Definition statement

This subclass/group covers:

Chemical compositions for dental treatment characterised by the presence of organic or organo-metallic additives.

Special rules of classification within this group

According to their function, the additives are to be classified in the subgroups as:

initiators

- if cationic, anionic or redox: A61K 6/005

- if photochemical: A61K 6/0052

- if thermal: A61K 6/0055;

dyes (A61K 6/0058),

- if photochromic: A61K 6/0061

- if thermochromic A61K 6/0064:

medicaments or drugs (A61K 6/0067)

A61K 6/007

[N: Preparations for dentistry characterized by the presence of inorganic additives]

Definition statement

This subclass/group covers:

Chemical compositions for dental treatment characterised by the presence of inorganic additives.

Special rules of classification within this group

According to their function, the additives are to be classified in the subgroups / as:

– fillers (A61K 6/0073), further subdivided according to their chemical features in the subgroups A61K 6/0076-A61K 6/0091;

– pigments (A61K 6/0094)

– Initiators (A61K 6/0097)

A61K 6/02

[N: Use of preparations for artificial teeth, for filling or for capping teeth]

Definition statement

This subclass/group covers:

Chemical compositions for artificial teeth, for filling or for capping teeth with respect to e.g. crowns, inlays, onlays, implants and filling material based on polymeric, metallic, ceramic, cement and composite materials.

Special rules of classification within this group

Documents are to be classified in the group A61K 6/02 only if no more appropriate class can be found according to the material used:

- Ceramics (A61K 6/0205), further subdivided into different kinds of ceramics; based on the main metal used, documents are to be classified in the subgroups A61K 6/021-A61K 6/026;

- Cermets (Ceramics-Metal) composites (A61K 6/0265)

- Materials comprising non-metallic elements or compounds thereof (A61K 6/027), further subdivided into: glass-ceramic composites (A61K 6/0273); glasses (A61K 6/0276); phosphorus compounds, e.g. apatite (A61K 6/033)

- Metals or alloys (A61K 6/04), further subdivided into: rare earth metals (A61K 6/043); noble metals (A61K 6/046), amalgams (A61K 6/05)

- Inorganic cements (A61K 6/06); based on the chemical features of the cement, documents are to be classified in subgroups A61K 6/0606-A61K 6/0693

- Natural or synthetic resins (A61K 6/08):

Specific resins are to be classified in the appropriate class (A61K 6/083 or A61K 6/087, see below) in combination with a C08L class for specifying the kind of polymer; only if the resin used is very general, documents are to be classified in the main group A61K 6/08.

A61K 6/10

[N: Compositions for taking dental impressions]

Definition statement

This subclass/group covers:

Chemical compositions for taking dental impressions

References relevant to classification in this group

This subclass/group does not cover:

Impression methods	A61C 9/00
Impression cups or impression trays	A61C 9/0006
- analysis and determination, detecting (2D or 3D) - computer assisted-sizing	A61C 13/0004
Images-producing devices	A61B 19/00N

Special rules of classification within this group

The specific chemical compositions for taking dental impressions are to be classified in combination with the appropriate C08L subclass for specifying the kind of polymer, e.g. containing alginates are classified in Combination set (A61K 6/10,C08L 5/04); for general polymer compositions, documents are to be classified in the main group A61K 6/10.

A61K 8/00

Cosmetic or similar toilet preparations (casings or accessories for storing or handling of solid or pasty toilet or cosmetic substances A45D40/00)

Definition statement

This subclass/group covers:

Compositions for making-up the skin e.g. lipsticks, rouge, mascara, foundation or preparations for removing make-up, manicure and pedicure preparations e.g. nail polish and nail coating remover, hair care preparations e.g. Shampoo, preparations for permanent waving or straightening, bleaching, dying or conditioning the hair, preparations

for affecting hair growth e.g. treatment of hair loss or for slowing hair grow, Preparations for removing hair e.g. shaving and depilatory preparations, oral care preparations e.g. dentifrices, formulations for perfume preparations, Anti-perspirants or body deodorant, barrier preparations e.g. insect repellents or sunscreens, preparations for care of the skin e.g. whitening, tanning, slimming, anti-aging or cleansing preparations.

Processes of preparing and using the cosmetic or similar toilet preparations.

Relationship between large subject matter areas

Use of cosmetics or similar toilet preparations should be further classified in subclass A61Q.

Soap bars (i.e solid cleansing compositions)and surface cleaning compositions (washing or hard surface cleaning compositions) are classified in C11D. General cleansing compositions which are usually liquid are classified in A61Q and in A61K8.

Compositions which can be used in a therapeutic treatment should be classified in A61K 31/00 to A61K 51/00 if they are defined by their ingredients or in A61K 9/00, if they are defined by their physical form.

Ingested compositions like food or dietary supplements having an external cosmetic effect are further classified in A23L. Examples might be dietary supplements to stengther nails or to act against skin aging, or drops or sweets affecting the oral cavity

References relevant to classification in this subclass

This subclass/group does not cover:

Chemical compounds as such	C01 to C09
Essential oils or perfumes per-se	C11B 9/00
Preparations for dentistry	A61K 6/00
Artificial skin	A61F 2/105, A61L 27/60
Bar soap	C11D 17/0047
Deodorisation of air	A61L 9/00
Dyeing of wool	D06P 3/14
Artificial nails	A45D 31/00
Artificial eyelash or hair	A41G 5/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Medicinal preparation characterised by physical form	A61K 9/00, A61K 47/00

Medicinal preparation characterised by chemical ingredients	A61K 31/00 to A61K 51/00
Organic compounds	C07
Organic macromolecular compounds	C08
Inorganic compounds	C01

Special rules of classification within this group

In each of groups A61K 8/02 and A61K 8/18, in the absence of an indication of the contrary, classification is made in the last appropriate place.

Each relevant compound (i.e. which belong to the core of the invention(see* in Glossary of terms)) is classified according to the last place rule in one of A61K 8/19 to A61K 8/99.

Only relevant compounds or pertinent physical form, i.e. compounds in the composition or specific form (example: emulsion, foam) linked to the effect aimed, i.e. "core of the invention" (see * in Glossary of terms).To classify a patent document, the claims, the description and the examples have to be checked to assess the core of the invention (see* in Glossary of terms).

-> example I

Only specific compounds, i.e. those present in the exemplified compositions, are classified, not a general concept or a general formula.

-> example II

Attention is drawn to the Notes in class C07, for example the Notes following the title of subclass C07D, setting forth the rules for classifying organic compounds in that class, which rules are also applicable, if not otherwise indicated, to the classification of organic compounds in group A61K 8/00.

Salts or complexes of organic compounds are classified according to the base compounds. If a complex is formed between two or more compounds, classification is made in both places.

Class combined

This group is always combined with the subclass A61Q (i.e. principal uses(see** in Glossary of terms)) and can be further classified in A61K 2201/00 and/or A61Q.

Compositions or compounds characterised by specific properties	A61K 2201/00

The Indexing Codes of this scheme are to be used mainly with classification A61K 8/00 and A61Q and is considered to be obligatory supplementary classification of subject matter already classified in A61K 8/00 and A61Q if applicable.

Compositions or compounds characterised by specific properties	A61Q

This subclass is considered as additional information (see** in Glossary of terms), i.e. obligatory supplementary classification of subject matter already classified in A61K 8/00 and A61Q if applicable. This subclass concerns cosmetic uses which are indicated as eventual application(s) for the composition.

->Example III

Reference is further made to annotations in subclasses where it has been considered relevant and helpful.

Example I: "classify only relevant compounds"

A sunscreen composition stabilised with a specific compound will be classified as follow: A61Q 17/04 and under A61K 8/00 for the compound ; no class is attributed for the sunscreen agent used in the example, i.e. redundant information. In case where the technical problem of the patent document is linked to a specific compound, the compound is classified!

The same can be observed for compositions containing hair oxidative or direct dyes or skin tanning agent and dealing with an other technical problem, i.e. viscosity, cosmetic properties where the type of cosmetic agent is not pertinent.

Example II: "General formula /specific compound"

A patent document claims the use of an amino acid (group title of A61K 8/44) but the single compound used in the examples is Histidine (i.e. A61K 8/4946) or Cysteine (A61K 8/447). Classes are made only for the concrete compounds explicitly disclosed or present in exemplified compositions in the patent document.

The same is applicable for ingredients described by a general formula (i.e. "Markush formula"), only the concrete compounds are classified, not the common chemical concept.

Example III: principal or additional use(s)

A skin moisturising composition which is further used in a anti-ageing preparation or as lip cream, would be classified in A61Q 19/00, A61Q 19/08

and A61Q 19/001.

If the active is a new sunscreen and an anti-ageing preparation which contains this new compound is exemplified, it should be classified in A61Q 17/04 and A61Q 19/08.

If the active is a compound to condition the hair and a shampoo or a colouring composition (non-permanent hair dyeing containing direct dyes) is exemplified, it should be classified in A61Q 5/12, A61Q 5/02 and A61Q 5/065

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

(*) Core of the invention	Compounds in the composition or specific form (example: emulsion, foam) linked to the effect aimed. This means that not all compounds present in a composition are classified. To classify a document, the claims, the description and the examples have to be checked. Only specific components, i.e. those present in the exemplified compositions, are classified not a general concept or a general formula.
(**) Principal use vs. additional use	The principal use is linked to the effect intended in the document and is classified in A61Q .In the claims or examples further uses or types of compositions are often described which should be classified in A61Q .For example: a mixture of compounds is directed to an anti-aging purpose (A61Q 19/08) which is further introduced in sunscreen composition (A61Q 17/04).

A61K 8/02

Characterised by special physical form

Definition statement

This subclass/group covers:

Films; injections; cotton-swab applicators (Q-tip); paracrystaline or multiphases; Oral administration

References relevant to classification in this group

This subclass/group does not cover:

Hexagonal or cubic phases being liquid crystals	A61K 8/02H

Informative references

Attention is drawn to the following places, which may be of interest for search:

Medicinal preparations characterized by special physical form	A61K 9/00
Cosmetic equipment	A45D

Special rules of classification within this group

Compositions characterised by special physical form should be classified in group A61K 8/02 together with the appropiate Indexing Code under A61K 2201/10 or subgroups, if it exists.

A61K 8/0208

[N: Tissues; Wipes; Patches]

Definition statement

This subclass/group covers:
Towelettes; impregnated napkins; impregnated sponges; impregnated non-woven fabrics.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Medicinal preparations characterized by special physical form: Web, sheetor filament bases	A61K 9/70

Detergent compositions	C11D
Sanitary equipment not otherwise provided for	A47K
Making textile fabrics	A61F
Layered products	B32B
Containers Op packages with special means for dispensing contents	B65D 83/08

A61K 8/0212

[N: Face masks]

Definition statement

This subclass/group covers:
Packs

Informative references

Attention is drawn to the following places, which may be of interest for search:

Masks for cosmetics treatment of the face	A45D 44/002

A61K 8/02H

[N: Liquid crystals]

Definition statement

This subclass/group covers:
Lyotropic phases; mesophases; mesomorphic phases; lamellar, cubic

(isotropic) or hexagonal phases; nematic, smectic or cholesteric phases;

bilayer lamellar gel network (WO0119343).

Informative references

Attention is drawn to the following places, which may be of interest for search:

Lyquid crystals in medicinal preparations	A61K 9/1274

A61K 8/04

Dispersions; Emulsions

Informative references

Attention is drawn to the following places, which may be of interest for search:

Use of substances as emulsifying, wetting, dispersing or foam-producingagent	B01F 17/00

A61K 8/042

[N: Gels]

Definition statement

This subclass/group covers:

Dispersions of a macromolecular compound in colloidal form in a liquid dispersing phase.

A61K 8/044

[N: Suspensions]

Definition statement

This subclass/group covers:

Wax microdispersions.

A61K 8/046

[N: Aerosols; Foams]

Definition statement

This subclass/group covers:

Foamable compositions; self foaming (CO2 releasing) compositions;

sprays; post-foaming compositions.

Special rules of classification within this group

Effervescent compositions should be classified in subclass A61K 8/046 together with the Indexing Code A61K 2201/045.

A61K 8/04H

[N: Microbeadlets; Microspheres; Granules; Microgranules]

Definition statement

This subclass/group covers:
Solid in solid dispersions; Agglomerates; Matrices; Pearls; Composites particles.

A61K 8/06

Emulsions

Definition statement

This subclass/group covers:
Direct emulsions (O/W); inverse emulsions (W/O); Pickering emulsions.

A61K 8/06C

[N: Microemulsions; Nanoemulsions]

Definition statement

This subclass/group covers:
Transparent emulsions; o/w nanogel (US2003012759).

A61K 8/11

Encapsulated compositions

Definition statement

This subclass/group covers:
Encapsulated compositions having a particle size bigger than 100 micrometers.

A61K 8/11C

[N: Microcapsules]

Definition statement

This subclass/group covers:
E ncapsulated compositions having a particle size from 0.1 up to 100 micrometers.

Core/shell systems; coated powders; Glycospheres (EP692243); collaspheres; hollow particles; 0.1-5 mm "Millicapsules" (EP1243325); Biocapsules; Empty cells, e.g. yeast (WO0151013).

A61K 8/11F

[N: Nanocapsules]

Definition statement

This subclass/group covers:
N anocapsules having a particle size less than 100 nanometers; Coated nanoparticles.

A61K 8/14

Liposomes; Vesicles

Definition statement

This subclass/group covers:
Nanosomes; nanovesicles.

Special rules of classification within this group

Nanosomes and nanovesicles should be classified in subclass A61K 8/14 together with the Indexing Code A61K 2201/103.

A61K 8/14C

[N: Micelles]

Definition statement

This subclass/group covers:
Rod-like micelles; globular micelles.

Special rules of classification within this group

On a phase diagram, a multiple emulsion (classified in A61K 8/066), liquid crystals (classified in A61K 8/02H) and micelles can coexist.

A61K 8/19

containing inorganic ingredients

Relationship between large subject matter areas

Complexes e.g. zinc hyaluronic acid, should be classified in the subclass A61K 8/19 and subgroups according to the inorganic part together with the appropiate classification according to the organic part in A61K 8/30 and subgroups.

A61K 8/22

Peroxides; Oxygen; Ozone

Definition statement

This subclass/group covers:
Perborates; persalts; H 2O 2.

A61K 8/23

Sulfur; Selenium; Tellurium; Compounds thereof

Definition statement

This subclass/group covers:
Persulphates; thiosulphates.

A61K 8/24

Phosphorous; Compounds thereof

Definition statement

This subclass/group covers:

Tripolyphosphates; Fluorophosphates (NaMFP).

A61K 8/25

Silicon; Compounds thereof

Definition statement

This subclass/group covers:
Glass beads; sand; talc (Mg silicate); Chrysotile (Mg silicate).

A61K 8/26

Aluminium; Compounds thereof

Definition statement

This subclass/group covers:
Clays in general (aluminosilicates): Bentonite, hectorite, montmorillonite, kaolin; mica; zeolites.

Relationship between large subject matter areas

Quaternary ammonium clays should be classified in subclass A61K 8/26 together with subclass A61K 8/416.

A61K 8/27

Zinc; Compounds thereof

Definition statement

This subclass/group covers:
Zinc oxides; Zinc peroxides.

A61K 8/28

Zirconium; Compounds thereof

Definition statement

This subclass/group covers:
Aluminium-zirconium compounds.

A61K 8/29

Titanium; Compounds thereof

Definition statement

This subclass/group covers:
Titanium oxides.

A61K 8/31

Hydrocarbons

Definition statement

This subclass/group covers:
Paraffins, e.g. Permethyl 99A (isododecane) or Isopar E (mixture of C 8-C 9 aliphatic hydrocarbons); Squalane; Patrolatum (Vaseline); Carotenes, e.g. lycopene.

A61K 8/315

[N: Halogenated hydrocarbons]

References relevant to classification in this group

This subclass/group does not cover:

Chlorofluorocarbons (Freons)	A61K 8/69

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polymeric Chlorofluorocarbons (polymeric Freons)	A61K 8/8123

A61K 8/33

containing oxygen

Definition statement

This subclass/group covers:

Aldehydes; Ethers.

A61K 8/355

[N: Quinones]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Hydroquinone	A61K 8/347

A61K 8/362

Polycarboxylic acids

Definition statement

This subclass/group covers:
Salts and anhydrides thereof; Dicarboxylic acids.

A61K 8/365

Hydroxycarboxylic acids; Ketocarboxylic acids

Definition statement

This subclass/group covers:
Salts and anhydrides thereof; Gluconic acids.

A61K 8/368

with carboxyl groups directly bound to carbon atoms or aromatic rings

Definition statement

This subclass/group covers:
Salts and anhydrides thereof.

A61K 8/37

Esters of carboxylic acids

Definition statement

This subclass/group covers:
Carbonic acid ester, e.g. dialkyl carbonates.

A61K 8/39

Alkoxylated derivatives, i.e. derivatives containing from 2 to 10 oxyalkylene groups

Definition statement

This subclass/group covers:
Polyglycerins containing from 2 to 10 repeating units in the same chain.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alkoxylated derivatives containing 11 or more oxyalkylene groups in thesame chain	A61K 8/86
Polyglycerins containing 11 or more repeatingunits in the same chain	A61K 8/86

A61K 8/40

containing nitrogen (quinones containing nitrogen A61K8/355)

Definition statement

This subclass/group covers:
Imine R=N-H; Oximes R-CH=N-OH; Hydrazones R-CH=N-NH 2; Azines

R-CH=N-N=C; Nitriles R-CN; Isocyanates R-N=C=O; Cyanates R-O-CN;

Amine oxides; Quinoneimines; Azo compounds; imides RR'C=NH.

A61K 8/41

Amines

Definition statement

This subclass/group covers:
Alkanolamines; Cyanamides NC=NH 2; Sphingosines.

A61K 8/415

[N: Aminophenols]

References relevant to classification in this group

This subclass/group does not cover:

Anthraquinones	A61K 8/355

A61K 8/42

Amides

Definition statement

This subclass/group covers:

Urea (H 2N-C(=O)-NH 2) is also included in this group

A61K 8/44

Aminocarboxylic acids or derivatives thereof, e.g. aminocarboxylic acids containing sulfur; Salts; Esters or N-acylated derivatives thereof

Definition statement

This subclass/group covers:

Betaines; Carbamates.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Peptides, i.e. polymers of 2 or more aminoacids	A61K 8/64
Histidine	A61K 8/4946
Proline	A61K 8/4913
Tryptophan	A61K 8/492
Asparagine	A61K 8/442
Glutamine	A61K 8/442

A61K 8/442

[N: substituted by amido group(s)]

Definition statement

This subclass/group covers:

Amidobetaines; Cocoamphoacetates; Aspargine; Glutamine.

A61K 8/45

Alkoxylatedderivatives, i.e. derivatives containing from 2 to 10 oxyalkylene groups

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alkoxylated derivatives containing 11 or more oxyalkylene groups in thesame chain	A61K 8/86

A61K 8/46

containing sulfur (A61K8/44 takes precedence)

Definition statement

This subclass/group covers:

Thiocyanates R-S-CN; Sulfamic acids N-SO 3H.

A61K 8/466

[N: containing sulfonic acid derivatives; Salts]

Definition statement

This subclass/group covers:

Sulfonamides; Sulfosuccinates; Sultaines, e.g. Cocoamidopropylhydroxysultaine; Taurine; Isethionates.

A61K 8/49

containing heterocyclic compounds

Definition statement

This subclass/group covers:
Thiazole, pyrrole-oxazole, morpholine; Heterocyclic compounds containing having at least two different hetero atoms in the same or different hetero ring, condensed or not and/or in the same or different ring system.

A61K 8/4906

[N: with one nitrogen as the only hetero atom]

Definition statement

This subclass/group covers:
Heterocyclic compounds containing one or several hetero rings, condensed or not, in the same or different ring system, each hetero ring having only one nitrogen as the only hetero atom.

A61K 8/4913

[N: having five membered rings, e.g. pyrrolidone carboxylic acid]

Definition statement

This subclass/group covers:
Pyrrole; Pyrrolidine; Proline; Heterocyclic compounds containing one or several not condensed hetero rings, in the same or different ring system, each hetero ring having only one nitrogen as the only hetero atom and having fivemembered hetero rings.

A61K 8/492

[N: having condensed rings, e.g. indol]

Definition statement

This subclass/group covers:

Phthalimides; Pyrrocoline; Isatin; Trytophan; Heterocyclic compounds containing one or several condensed hetero rings, in the same or different ring system, each hetero ring having only one nitrogen as the only hetero atom and having five membered hetero rings.

A61K 8/4926

[N: having six membered rings]

Definition statement

This subclass/group covers:
Piperidine; Pyridine; Acridine; Quinoline; Heterocyclic compounds containing one or several condensed or not hetero rings, in the same or different ring system, each hetero ring having only one nitrogen as the only hetero atom and having six-membered hetero rings.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Nicotinic acid	A61K 8/675

A61K 8/4933

[N: having sulfur as an exocyclic substituent, e.g. pyridinethione]

Definition statement

This subclass/group covers:
Heterocyclic compounds containing one or several hetero rings, condensed or not, in the same or different rings systems, each hetero ring having only one nitrogen as the only hetero atom and having sulphur as an exocyclic substituent of the hetero ring.

A61K 8/494

[N: with more than one nitrogen as the only hetero atom]

Definition statement

This subclass/group covers:

Pyrazole; Piperazine; Pyridazine; Pyrazine; Heterocyclic compounds

containing one or several hetero rings, condensed or not, in the same or different rings systems, and at least one hetero ring having more than one nitrogen as the only hetero atom.

A61K 8/4946

[N: Imidazoles or their condensed derivatives, e.g. benzimidazoles]

Definition statement

This subclass/group covers:

Allantoin (imidazolidinyl urea derivative); Histidine.

A61K 8/4953

[N: containing pyrimidine ring derivatives, e.g. minoxidil]

Definition statement

This subclass/group covers:

Condensed derivatives of the pyrimidine ring; Purines; Orotic acid;

Adenine; Guanine.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Folic acid	A61K 8/67

A61K 8/4973

[N: with oxygen as the only hetero atom]

Definition statement

This subclass/group covers:

Oxetane; sorbitan esters; Heterocyclic compounds containing one or several hetero rings, condensed or not, in the same or different rings systems, each hetero ring having oxygen as the only hetero atom.

A61K 8/498

[N: having 6-membered rings or their condensed derivatives, e.g. coumarin]

Definition statement

This subclass/group covers:

Genistein; Heterocyclic compounds containing one or several hetero rings, condensed or not, in the same or different rings systems, each hetero ring having oxygen as the only hetero atom and having sixmembered hetero rings.

A61K 8/4986

[N: with sulfur as the only hetero atom]

Definition statement

This subclass/group covers:

Thiophene; Lipoic acid; Compounds containing one or several hetero rings, condensed or not, in the same or different rings systems, each hetero ring having sulphur as the only hetero atom.

A61K 8/4993

[N: Alkoxylated derivatives, i.e. derivatives containing from 2 to 10 oxyalkylene groups]

Definition statement

This subclass/group covers:

Condensed derivatives; Polysorbates.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alkoxylated derivatives containing 11 or more oxyalkylene groups in thesame chain	A61K 8/86

A61K 8/58

containing atoms other than carbon, hydrogen, halogen, oxygen, nitrogen, sulfur or phosphorus

Definition statement

This subclass/group covers:

Organometallic compounds.

A61K 8/585

[N: Organosilicon compounds]

Definition statement

This subclass/group covers:

Silanes; Silisesquioxanes; Cyclomethicones, e.g. Hexamethylcyclotrisiloxane, Octamethylcyclotetrasiloxane, Decamethylcyclopentasiloxane; Linear volatile siloxanes; Chlorophyll.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Polysiloxanes	A61K 8/89

A61K 8/60

Sugars; Derivatives thereof

Definition statement

This subclass/group covers:

Oligosaccharides up to 5 monomeric units; Aminosugars, e.g. glucosamine; Uronic acids, e.g. glucuronic acid; Erythrulose.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Reduced sugar derivatives, e.g. erythritol, glucitol or xylitol	A61K 8/345
Straight-chain acids, e.g. gluconic acid	A61K 8/365
Ethers of disaccharides and a steroid	A61K 8/63

A61K 8/602

[N: Glycosides, e.g. rutin]

Definition statement

This subclass/group covers:

Glucosides; Galactosides.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Glycoside	acetal derivative of a sugar.

A61K 8/604

[N: Alkylpolyglycosides; Derivatives thereof, e.g. esters]

Definition statement

This subclass/group covers:

Alkylmonoglycosides, oligoglycosides and -polyglycosides.

A61K 8/608

[N: Alkoxylated derivatives, i.e. derivatives containing from 2 to 10 oxyalkylene groups]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alkoxylated derivatives containing 11 or more oxyalkylene groups in thesame chain	A61K 8/86

A61K 8/64

Proteins; Peptides; Derivatives or degradation products thereof

Definition statement

This subclass/group covers:

Cytochromes; glycoproteines; antibodies.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Medicinal preparations containing peptides	A61K 38/00
Medicinal preparations containing antigens or antibodies	A61K 39/00
Polyaminoacids formed from one up to three repeating aminoacid units	A61K 8/88

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Peptide	Compounds containing at least two aminoacids units whichare bound through at least one normal peptide link.
Normal peptide link	The link between an alpha-amino group of anaminoacid and the carboxyl group - in position 1 - of an other alphaaminoacid.

A61K 8/645

[N: Proteins of vegetable origin; Derivatives or degradation products thereof]

Special rules of classification within this group

Cyclosporins should be classified according to their structures.

A61K 8/66

Enzymes

Informative references

Attention is drawn to the following places, which may be of interest for search:

Medicinal preparations containing enzymes	C12N

A61K 8/67

Vitamins

Definition statement

This subclass/group covers:
Folic acid.

A61K 8/676

[N: Ascorbic acid, i.e. vitamin C]

Definition statement

This subclass/group covers:
Derivatives of ascorbic acid.

A61K 8/678

[N: Tocopherol, i.e. vitamin E]

Definition statement

This subclass/group covers:
Derivatives of tocopherol.

A61K 8/68

Sphingolipids, e.g. ceramides, cerebrosides, gangliosides

Definition statement

This subclass/group covers:
Synthetized pseudoceramide derivatives which are characterized by structures having both amide or nitrogen bonds and hydroxyl groups as hydrophilic units, as well as two long chains; Alkanolamides from

sphingosine and a fatty acid; Glycoceramides.

A61K 8/69

containing fluorine

Definition statement

This subclass/group covers:
Organic fluorides and Chlorofluorocarbons (Freons).

A61K 8/72

containing organic macromolecular compounds

Definition statement

This subclass/group covers:
Natural rubber; Latex; Melanins; Dendrimers; Supra molecular polymers.

References relevant to classification in this group

This subclass/group does not cover:

Proteins	A61K 8/64
Nucleic acids	A61K 8/606
Alkylpolyglycosides	A61K 8/604

A61K 8/73

Polysaccharides

Definition statement

This subclass/group covers:
Polymers of 6 or more saccharide units, e.g. dextran.

A61K 8/732

[N: Starch; Amylose; Amylopectin; Derivatives thereof]

Definition statement

This subclass/group covers:
(Malto) dextrin.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cyclodextrins	A61K 8/738

A61K 8/737

[N: Galactomannans, e.g. guar; Derivatives thereof]

Definition statement

This subclass/group covers:
Locust bean gum; Tara; Ceratonia siliqua.

A61K 8/738

[N: Cyclodextrins]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cyclodextrins in medicinal preparations	A61K 47/40

A61K 8/81

obtained by reactions involving only carbon-to-carbon unsaturated bonds

Definition statement

This subclass/group covers:
Unless otherwise specified in this classication, these group and its

subgroups cover the polymers as defined in C08L 23/00 to C08L 49/00.

A61K 8/8105

[N: Compositions of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Compositions of derivatives of such polymers]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 23/00

A61K 8/8111

[N: Homopolymers or copolymers of aliphatic olefines, e.g. polyethylene, polyisobutene; Compositions of derivatives of such polymers]

Definition statement

This subclass/group covers:

Polydecene.

A61K 8/8117

[N: Homopolymers or copolymers of aromatic olefines, e.g. polystyrene; Compositions of derivatives of such polymers]

Definition statement

This subclass/group covers:

Sodium polystyrene sulfonate; Polymers obtained from divinylbenzene.

A61K 8/8123

[N: Compositions of homopolymers or copolymers of compounds having one carbon-to-carbon double bond, and at least one being terminated by a halogen; Compositions of derivatives of such polymers, e.g. PVC, PTFE]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 27/00

A61K 8/8129

or more unsaturated aliphatic radicals, each having only onecarbon-to-carbon double bond, and at least one being

terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical; Compositions of hydrolysed polymers or esters of unsaturated alcohols with saturated carboxylic acids; Compositions of derivatives of such polymers, e.g. polyvinylmethylether]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 29/00

A61K 8/8135

[N: Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid or of a haloformic acid; Compositions of derivatives of such polymers, e.g. vinyl esters (polyvinylacetate)]

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 31/00

A61K 8/8141

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 33/00.

A61K 8/8147

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 33/02

A61K 8/8152

Informative references

Attention is drawn to the following places, which may be of interest for search:

Homopolymers or copolymers of esters, e.g. (meth)acrylic acid esters per se	C08L 33/04

A61K 8/8158

Definition statement

This subclass/group covers:

Polymers obtained from polyacrylamidomethylpropane sulphonic acid

(AMPS).

Informative references

Attention is drawn to the following places, which may be of interest for search:

Such homopolymers or copolymers of amides or imides per se	C08L 33/24

A61K 8/8164

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 35/00

A61K 8/817

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 39/00

Special rules of classification within this group

This class is given only if the nitrogen atom or the nitrogen containing heterocycle ring is directly linked to the polymer forming double bond.

A61K 8/8188

Definition statement

This subclass/group covers:
Polyvinylsulfonates; Polythiophenes.

References relevant to classification in this group

This subclass/group does not cover:

Polyquaternium-44	A61K 8/8182
AMPS polymers	A61K 8/8158
Polystyrene sulphonic acid	A61K 8/8117

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 41/00.

Special rules of classification within this group

This class is given only if the sulphur atom or the sulphur containing heterocycle ring is directly linked to the polymer forming double bond.

A61K 8/8194

Definition statement

This subclass/group covers:

Polymers obtained from monomers having conjugated double bonds, e.g.

butadiene, isoprene and chloroprene.

References relevant to classification in this group

This subclass/group does not cover:

Diallylamines, e.g. Polyquaternium-6, Polyquaternium-7, Polyquaternium-22 and Polyquaternium-39	A61K 8/817
Allylmethacrylate	A61K 8/8152
Divinylbenzene	A61K 8/8117
Polydecene	A61K 8/8111

Informative references

Attention is drawn to the following places, which may be of interest for search:

Compositions of such homopolymers or copolymers per se	C08L 47/00

A61K 8/84

Definition statement

This subclass/group covers:

Unless otherwise specified in this classification, these group and its

subgroups cover the polymers as defined in C08L 59/00 to C08L 87/00;

Polyureas; Polyurilene resin.

A61K 8/86

Definition statement

This subclass/group covers:

Alkoxylated derivatives containing 11 or more oxyalkylene groups in the same chain.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Alkoxylated derivatives, i.e. derivatives containing from 2 to 10 groups	A61K 8/39, A61K 8/45, A61K 8/4993, A61K 8/556, A61K 8/608

A61K 8/88

Definition statement

This subclass/group covers:

Polyaminoacids formed from one up to three repeating aminoacid units; Polyimides; Polyaminoamides.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Proteins and peptides	A61K 8/64.

A61K 8/89

Informative references

Attention is drawn to the following places, which may be of interest for search:

Organo silicon compounds not being polymers	A61K 8/585

A61K 8/891

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Saturated	polysiloxanes containing silicone atoms bound to saturated or aromatic group.

A61K 8/893

Definition statement

This subclass/group covers:
Polysiloxanes derivatives containing from 2 to 10 alkoxy or aryloxy groups; Dimethicone PEG-8 benzoate.

A61K 8/894

Definition statement

This subclass/group covers:
Polysiloxanes derivatives containing 11 or more oxyalkylene groups.

A61K 8/895

Definition statement

This subclass/group covers:
Crosspolymers obtained from vinyl dimethicone.

A61K 8/92

Definition statement

This subclass/group covers:
Mixtures of several compounds of different nature and being oils, fats or waxes.

A61K 8/922

Definition statement

This subclass/group covers:
Essencial oils.

A61K 8/965

Definition statement

This subclass/group covers:
Mud; Sea water; mineral water.

A61K 8/97

Definition statement

This subclass/group covers:
Humus; Tar; Charcoal; Saponins; Tannins with no specific chemical structure.

References relevant to classification in this group

This subclass/group does not cover:

Condensed tannins , e.g. proanthocyanidines	A61K 8/498
Hydrolysable tannins, e.g. glycosides	A61K 8/602

A61K 8/98

Special rules of classification within this group

No document should be classified in this subgroup. Every document concerning material or animal origin should be classified in A61K 8/981 and subgroups or in A61K 8/987 and subgroups.

A61K 8/987

Definition statement

This subclass/group covers:
Material from fish or insects; Silk; Natural sponges; Pearls from oysters; Mother-of-pearl (nacre).

A61K 8/99

Definition statement

This subclass/group covers:
Cell cultures; Yeasts; Plankton; Lower fungi; Bacteria; Krill; Lichens; Undifferentiated plant seed cells.

Special rules of classification within this group

Fermentated products should be classified according to their origin together with an Indexing Code, e.g. A61K 2201/70 or A61K 2201/702.

A61K 9/00

Medicinal preparations characterised by special physical form

Definition statement

This subclass/group covers:

Pharmaceutical compositions which are characterised by the following galenical aspects:

- The form (e.g. tablets) (see also "Special rules" section)

- The site of application, i.e. the body location where they are administered (e.g. oral, nasal, rectal compositions)

- The drug release technique (e.g. effervescent compositions, osmotic delivery systems)

In addition, the following is also classified:

- Processes of making such compositions

- Medical uses characterised by any of the above galenical aspects (dosage form, site of application, release technique)

- Excipients for use in a specific dosage form

Relationship between large subject matter areas

Galenical aspects of pharmaceutical compositions are usually classified by giving a combination of classes in A61K 9/00 and A61K 47/00. The last place rule does not apply between A61K9 and A61K 47/00 - A61K 47/46.Excipients can be classified in A61K 47/00 or in A61K 9/00, depending on the situation: A61K 47/00 is used to classify excipients in compositions for which A61K 9/00 does not provide information on excipients. No A61K 47/00 is given if A61K 9/00 already provides information on excipients (e.g. tablet excipients are only classified in A61K 9/20...). New excipients per se are (in addition) classified in A61K 47/00.

Conjugates, i.e. compounds comprising a non-active ingredient bound to the active ingredient, are classified in A61K 47/48. Pharmaceutical compositions comprising conjugates may in addition be classified in A61K 9/00.

The active ingredients in pharmaceutical compositions are classified in A61K 31/00 - A61K 45/00, or A61K 48/00 - A61K 51/00.

References relevant to classification in this group

This subclass/group does not cover:

Nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparations	A61K 49/18
Preparations containing radioactive substances	A61K 51/12

Special rules of classification within this group

Classified are concrete, well-defined pharmaceutical compositions disclosed in the examples. Also classified are independent claims defining galenical aspects of a pharmaceutical composition or a medical use.

The one dot groups of A61K 9/00 do not follow the last place rule

In principle all examples are classified, also 'standard' examples in documents describing e.g. a new medical use.

However, systematically classifying all excipients in the examples is not necessary, and often undesirable. In any case classified are excipients which are described as being important for the invention, or which the reader can identify as having an important function, e.g. for sustained release. For 'standard' compositions the examiner should choose one or a few excipients to classify. (Note: A 'standard' example is an example that is simple and does not appear to be part of the invention. For instance in a document relating to the new medical use of a (new) chemical compound, often some compositions are given which are 'standard' (if not hypothetical): a tablet with e.g. lactose, microcrystalline cellulose and magnesium stearate, an injection solution with NaCl, etc.

In any case such examples should be classified, whether considered 'standard' or not. In how far all excipients in such compositions are classified is left to the classifier's discretion).

When there are too many examples, they can sometimes be covered by a more general class. However, head groups should not be used for this. (Note: A "head" group does not have the same meaning as a main group. With "head group" is meant a group which is further subdivided in such a way that classification can always be made in one of the lower groups. For instance A61K 9/2004 is a head group, A61K 9/0012 is a head group. In principle such head groups should be empty.

Animal tests to study pharmacokinetic properties of a drug are not classified, unless it is absolutely clear that they represent the intended mode of administration. (Note: What is meant here, are pharmacokinetic tests in

animals, e.g. by injection or gavage. Such tests usually say nothing about the final intended dosage forms, but are necessary e.g. for regulatory purposes. The value of their pharmaceutical/galenical information is therefore very low. Exceptions are perhaps inhalation tests in animals, as these are normally only done with drugs intended to be inhaled).

Processes for preparing a composition, even when claimed, are only classified if they appear of interest.

The description and dependent claims are not classified. However, if the document as a whole focuses on one clearly preferred embodiment, this embodiment may be classified, even in the absence of relevant examples or independent claims. The intention here is primarily to avoid that all lists in the dependent claims are fully classified (e.g. all tablet excipients for sustained release, while only one is used in the examples).

If a specific subcombination is claimed, such a subcombination will usually be reflected in the examples, which should in any case be classified. And if this subcombination is not reflected in examples, but clearly forms the invention (following e.g. the description), then it also should be classified. In all other cases, the specific subcombination is probably not inventive, so no need to classify.

In general, information relating to the invention is classified using EC-classes, while additional information is classified using Indexing Code-codes. This is largely up to the discretion of the examiner. Please note however the following special situations:

- Normally only final compositions are classified, not intermediates. However, it may be useful to classify intermediates with Indexing Code-codes (e.g. a tablet comprising microcapsules; a multicoated microparticle). If the intermediates are claimed separately, they must be classified.

- If an ECLA group refers out to another group, an Indexing Code-code may still be given for the first group (e.g. oral mucoadhesive film).

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this group, the following terms are used with the meaning indicated:

Microemulsion	any emulsion with a particle size below 1 µm
Microparticle	particle having a size between 1 µm and about 3 mm
Microsphere	homogenous or multi-nuclear particle having a size between 1 µm and

	about 3 mm
Microcapsule	capsule or coated particle having a size between 1 µm and about 3 mm
Nanoparticle, nanocapsule	(coated) particle or capsule having a size below 1 µm

A61K 31/00

Medicinal preparations containing organic active ingredients

Definition statement

This subclass/group covers:

Medicinal formulations or compositions per se containing organic therapeutically active ingredients.

Organic active compounds for use in any first or further medical application.

Use of an organic active ingredient for the manufacture of a medicament for the treatment of a pathological condition.

Relationship between large subject matter areas

For mixtures containing one or more active ingredients without chemical characterisation (i.e. only expressed in term of a functional feature, e.g. antihistamines, PDE4 inhibitors, neuroprotectors, serotonin receptor agonists, etc.), the symbol A61K 45/06 is also to be given in addition to the A61K 31/00 subgroup corresponding to the well defined component(s) of the mixture.

In the case of peptidic enzyme inhibitors wherein the chemical structure is well defined and can be classified under an A61K 31/00 subgroup (e.g. apicidin), that A61K 31/00 subgroup is assigned in addition to the appropriate A61K 38/00 symbol.

Cosmetic preparations which can be used for cosmetic as well as therapeutic indications are classified in both A61K 8/00 and A61K 31/00.

Compositions with a therapeutic application in the form of food, beverages or dietary supplements are further classified in A23L.

Organic active compounds containing non-radioactive isotopes, e.g. deuterium, N15 or C13, are to be classified in A61K 31/00 and not in A61K 51/00.

Contrary to IPC, no symbols exist in ECLA for classifying the specific therapeutic effect (diseases and pathologic conditions) claimed.

Contrary to IPC, no A61K 31/00 symbol is given for novel compounds, i.e. compounds claimed per se (including polymorphs and highly pure compounds, even when the set of claims further contains claims relating to their medical use. For those compounds, classification is only made in the relevant subclasses C07C to C07J according to the structure.

However, when the invention also discloses medicinal preparations containing said novel compounds in admixture with one or more active organic ingredients, then said novel compounds are also classified in the appropriate A61K 31/00 subgroup followed by symbol A61K 2300/00 to create the corresponding Combination-set, e.g. (A61K 31/60,A61K 2300/00), in addition to the C07 classification.

References relevant to classification in this group

This subclass/group does not cover:

Organic compounds claimed per se, i.e. allegedly novel organic compounds	C07
General methods in organic chemistry	C07B
Acyclic and carbocyclic compounds per se	C07C
Heterocyclic compounds per se	C07D
Sugars per se	C07H
Steroids per se	C07J
Empty galenic formulations, i.e. only comprising carriers, additives, excipients	A61K 9/00, A61K 47/00
Organic active compounds forming salts with heavy metals (unless otherwise specified)	A61K 33/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

In addition to the classification in A61K 31/00, a document has to be forwarded for classification in the following fields if (also) relating to:

Organic compounds claimed per se	C07
General methods in organic chemistry	C07B
Acyclic and carbocyclic compounds per se	C07C
Heterocyclic compounds per se	C07D
Sugars per se	C07H
Steroids per se	C07J
Antibodies	C07K/16
Coding and non-coding nucleic acids, e.g. ribozymes, antisenses	C12N 15/00
Undifferentiate human, animal or plant cells, e.g. cell lines; Tissues; Culture media	C12N 5/00
Galenic formulations characterized by special physical form	A61K 9/00
Galenic formulations characterized by the non-active ingredients used	A61K 47/00
Medicaments containing inorganic active ingredients	A61K 33/00
Medicaments containing active ingredients of undetermined constitution	A61K 35/00
Medicaments containing active ingredients from algae, lichens, fungi or plants	A61K 36/00
Medicaments containing peptides or proteins	A61K 38/00
Medicaments containing antigens or antibodies, vaccines, adjuvants	A61K 39/00
Homeopathy, thermotherapy,	A61K 41/00

photodynamic therapy, photoactivable drugs	
Mixtures of active ingredients without chemical characterization	A61K 45/06
Conjugates of active ingredients with a non-active ingredient	A61K 47/48
Medicinal preparations containing genetic material, gene therapy	A61K 48/00
Preparations for testing in vivo, e.g. screening, contrast agents, ultrasound	A61K 49/00
Preparations containing radioactive substances	A61K 51/00
In vitro diagnosis	G01N
Cosmetics, unless a therapeutic effect is also implied	A61K 8/00
Preparations for dentistry	A61K 6/00
Detergent compositions	C11D
Biocides, pest repellants or attractants	A01N
Animal feeding-stuffs	A23K 1/00
Food or functional food (nutraceuticals)	A23L
Detergent compositions	C11D
Biomaterials	A61L
Prosthese; orthopedic, nursing or contraceptive devices; protections of eyes or ears; bandages, dressing or absorbent pads, first-aid kits	A61F
Electrotherapy	A61N 1/00

Magnetotherapy	A61N 2/00
Radiation therapy	A61N 5/00

Special rules of classification within this group

General rules

- In the absence of an indication to the contrary, a compound is classified in the last appropriate place (last place rule), i.e. by identifying the portion of molecule which is identified in the lowest possible place in the classification scheme (i.e. the lowest place in print order), and assigning the corresponding subgroup.

- In this group no distinction is made between Invention information and Additional information.

What is classified

- Classified are the concrete, well-defined organic pharmaceutically active compounds disclosed in the claims and/or in the examples. In the absence of specific compounds, generic formulae (Markush formulae) are to be classified.

- In principle all specific compounds mentioned in the claims are classified. However, when there are too many compounds, as in the case of lengthy lists, classification is to be limited to a reasonable number of assignments, i.e. 10-15 compounds, covering e.g. the compounds tested, or the more significant compounds. Any generalisation to the next hierarchically higher level is to be avoided.

How are compounds classified?

When a compound is only and exclusively defined in the application by means of functional definitions, and no specific examples at all are provided, the main group A61K 31/00 will be assigned provided it is clear that the intended compound is an organic compound falling under A61K 31/00. However, should the application refer to said functionally defined compounds as being e.g. inorganic compounds, peptides, proteins, antigens or antibodies, then A61K 31/00 is not to be assigned.

Combinations or mixtures of pharmaceutically active compounds are classified in the appropriate A61K 31/00 subgroup followed by A61K 2300/00 in the corresponding Combination-set for each active ingredient. This also applies to mixtures comprising novel compounds receiving C07 classification. However, the combination of an organic therapeutically active compound with a specified excipient (e.g. crospovidone and mannitol) is not to be considered as a mixture of two therapeutically active ingredients and therefore no

Combination-set is to be created. In this case, the assignment of the appropriate symbol in A61K 47/00 for the excipient(s) may be required.

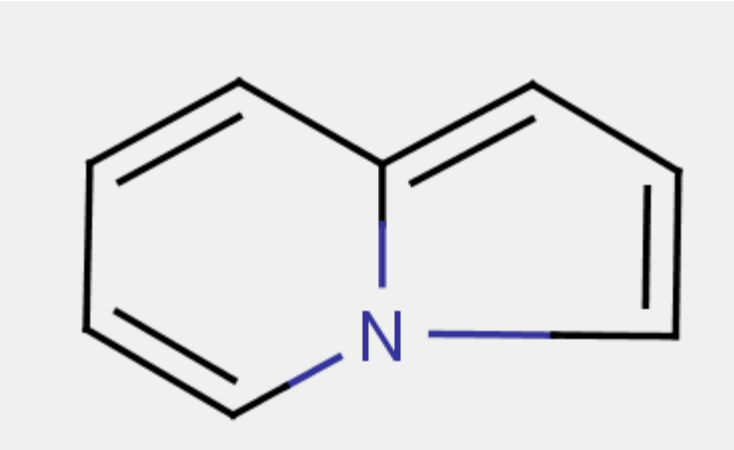
Salts or complexes of organic active compounds are classified according to the corresponding free compounds. However, salts or complexes formed between two or more organic active compounds are classified according to all compounds forming the salts or complexes followed by with A61K 2300/00 to create the corresponding Combination-set (i.e. as a mixture of active organic compounds).

According to the last place rule, salts formed between an organic active compound and heavy metals should be classified in A61K 33/24 to A61K 33/38 and not in subgroups A61K 31/28 to A61K 31/32, A61K 31/555 or A61K 31/714. This does not apply to complexes with heavy metals, as apparent from the A61K 31/00 scheme, wherein the complexes hemin and hematin are classified in A61K 31/555 and cyanocobalamin in A61K 31/714.

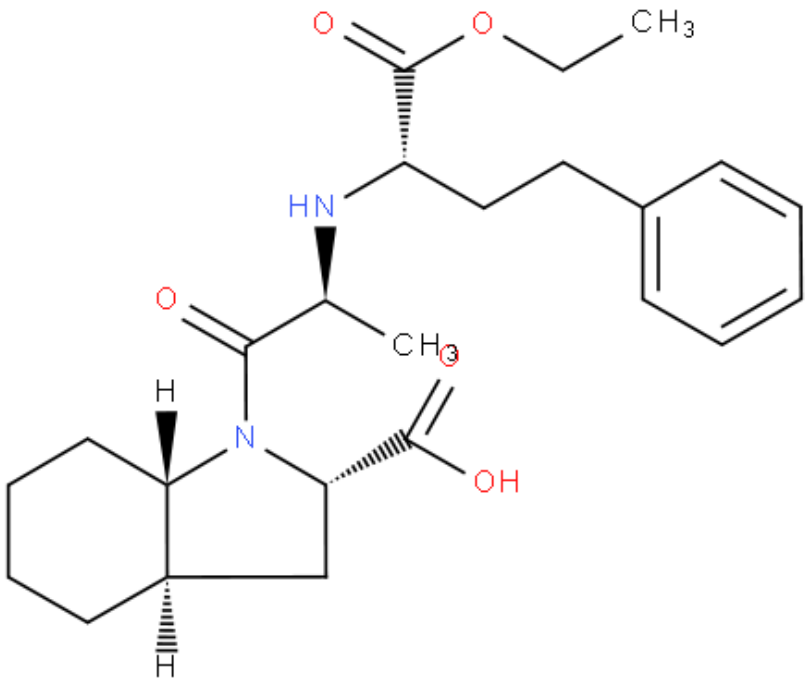
If a subgroup title is the name of a specific compound or a group of specific compounds (e.g. A61K 31/203 "Retinoic acid", A61K 31/375 "Ascorbic acid", A61K 31/4415 "Pyridoxine") only exactly the compounds named are classified in this group (not derivatives thereof). For instance A61K 31/203 covers retinoic acid, but not derivatives thereof. However, salts of retinoic acid or ascorbic acid still fall under the respective subgroup for the acid.

On the other hand, when a compound is mentioned in the group title only as an example ("e.g."), such as in A61K 31/5375 "1,4-oxazines, e.g. morpholine", the scope is not limited to this example.

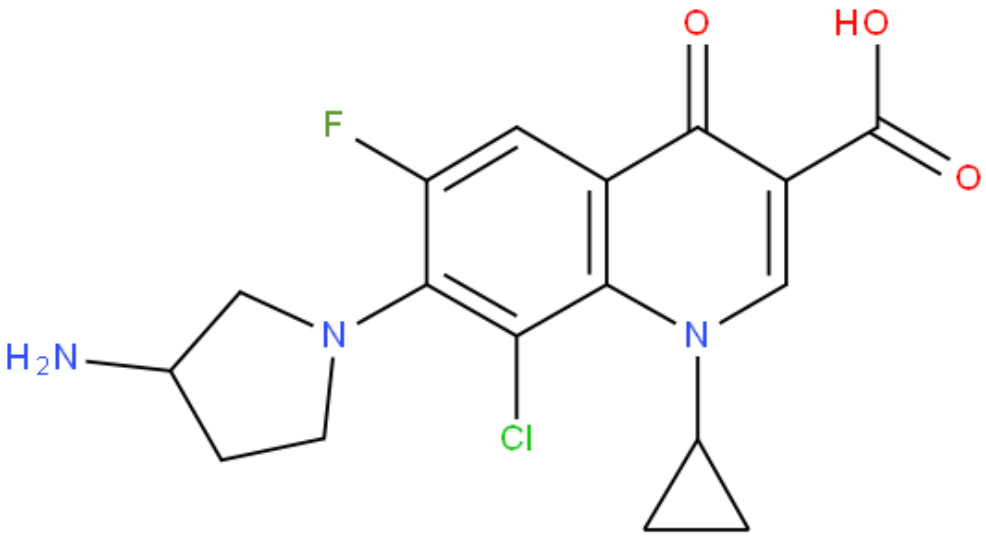
A fusion heteroatom, i.e. a heteroatom which is shared by two (or more) rings in a fused ring system is to be counted for all adjacent rings. Example: indolizine is correctly classified in A61K 31/437.



Unless otherwise specified (e.g. when distinguishing between non-condensed pyridines in A61K 31/44 and non-condensed piperidines in A61K 31/445), a class definition using a ring name encompasses all hydrogenated, (partially) dehydrogenated, oxidized (i.e. carrying a keto-group) and/or substituted derivatives. Examples: A61K 31/404 "Indoles" also covers fully hydrogenated derivatives, e.g. trandalopril



A61K 31/4709 "Non condensed quinolines and containing further heterocyclic rings" covers e.g. clinafloxacin

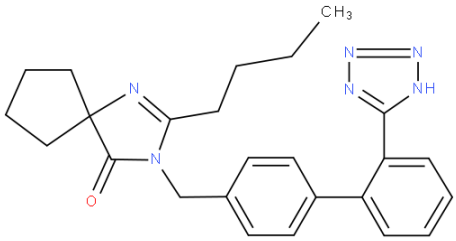


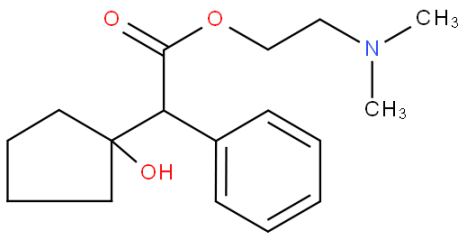
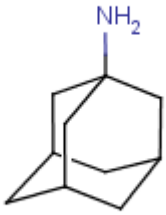
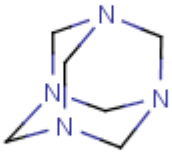
Glossary of terms

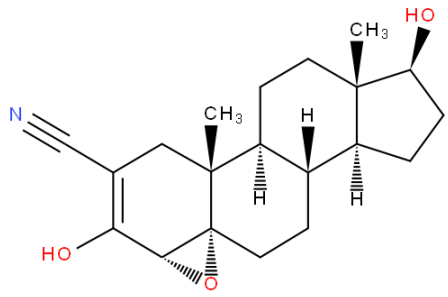
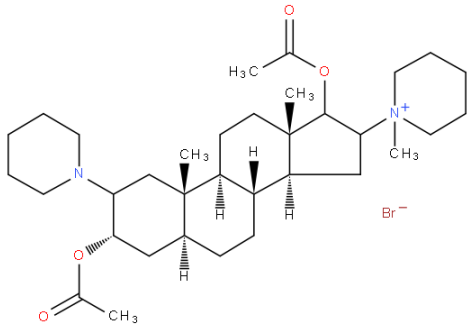
In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Unless explicitly defined otherwise, all chemical terms have their universally accepted meaning as understood by a chemist, e.g. as defined in the IUPAC Gold Book (http://goldbook.iupac.org/).

Alkyl	does not encompass alkenyl, alkynyl

	or cycloalkyl
Arylalkylamine (A61K 31/137)	- does not encompass arylcycloalkyl-amine; - does not encompass arylcycloalkyl-amine; - does not encompass N-aryl,N-alkylamine;- encompasses hydroxy-substituted, keto-substituted or halo-substituted arylalkylamine as well as bis-arylalkylamine.
Aryloxyalkylamine (A61K 31/138)	indicates the sequence Ar-O-Alk-N- and as above, allows substitutions on the Ar and Alk portion.
Steroids	see definition given in Note 1 following the title of C07J.
Carbohydrates and sugars	see definitions given in the Notes following the title of C07H.
Condensed ring system	Two rings are "condensed" if they share at least one ring member, i.e. not only ortho- and peri-, but also "bridged" and "spiro" are considered as condensed, as for example irbesartan, which is correctly classified in A61K 31/4184  A "condensed ring system" is a ring system in which all rings are condensed among themselves.
Attached to	directly attached, not via a linker, thus for example cyclopentolate is to be classified in A61K 31/216 and not A61K 31/235

	
Bridged ring system	a system which contains interlocking rings, i.e. a ring system where some of the rings constitute a fused ring system with ortho- and/or peri-condensation, and the remaining rings are created by one or more bridges, e.g. amantadine and hexamine  
" Containing carbocyclic rings", or "containing heterocyclic rings"	the plural form does not require the presence of more than one such ring, as for example in trilostane, which is correctly classified in A61K 31/58

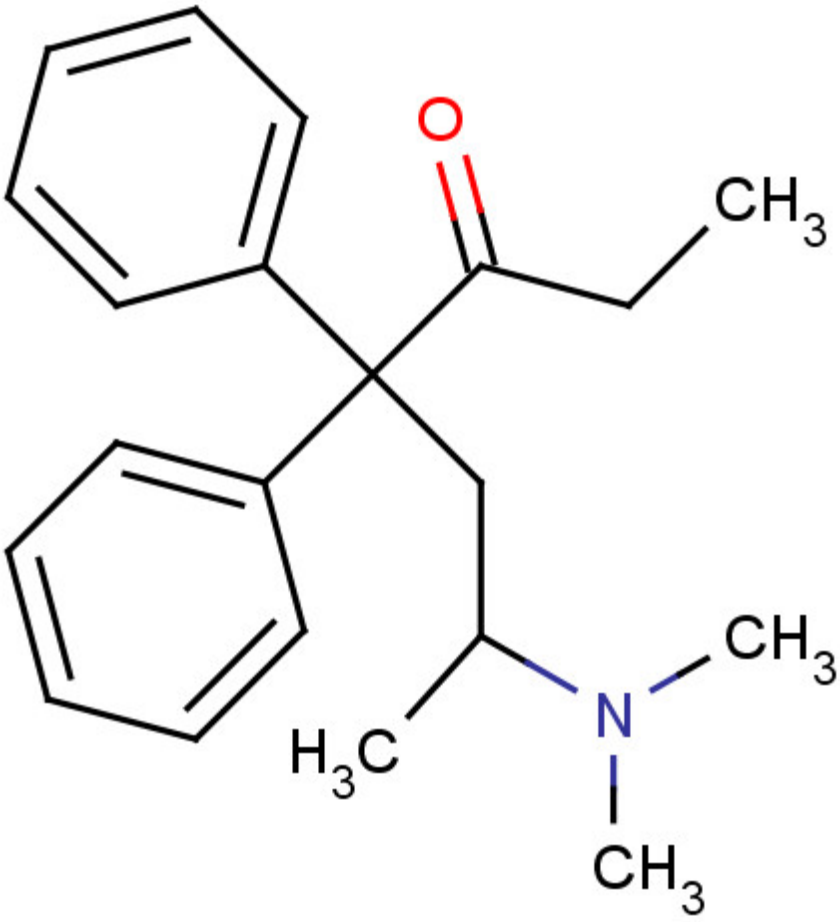
	
" Containing heterocyclic rings" [(for compounds classified according to the presence of a specific carbocyclic ring (system)], or"containing further heterocyclic rings" [for compounds classified according to the presence of a specific heterocyclic ring (system)]	does not require these further rings to be part of the specific ring (system) used as primary criterion for classification. Thus for example vecuronium bromide is to be classified in A61K 31/58 
Condensed with heterocyclic ring system	allows the condensation to occur via the non-heterocyclic ring of the heterocyclic ring system.
" containing further heterocyclic rings" and "condensed with heterocyclic rings"	also cover compounds having two or more identical heterocyclic rings, e.g. the compounds wherein the further heterocyclic ring is the same as the primary ring.
"containing" vs. "having"	in the definitions for all heterocyclic compounds, the term "having" requires that the feature indicated in the subgroup is possessed by or is on the heterocycle, whereas the term "containing" relates to an additional feature which can be in any part of the molecule.

Further details of the subgroups

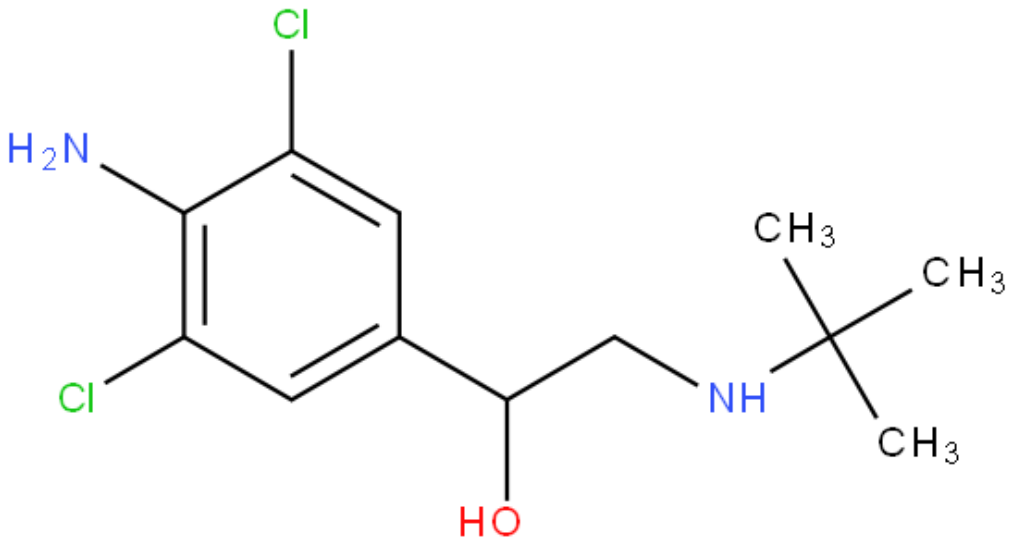
A61K 31/137

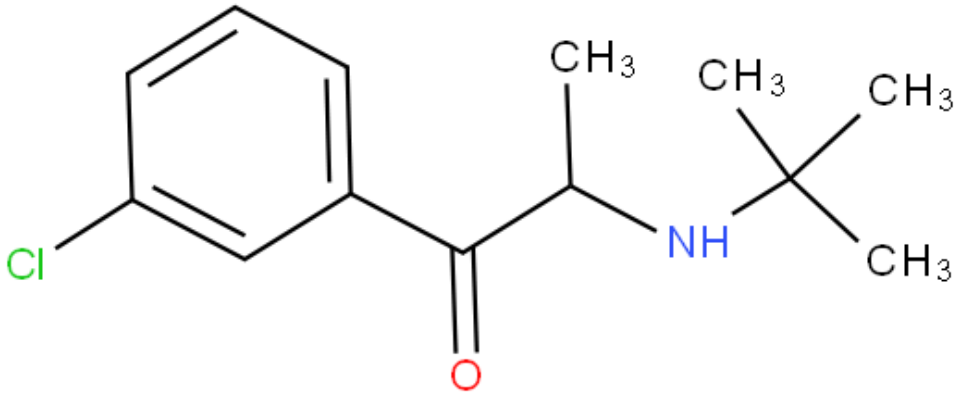
The term "Arylalkylamines" in A61K 31/137:

- encompasses bis-arylalkylamine; for example methadone



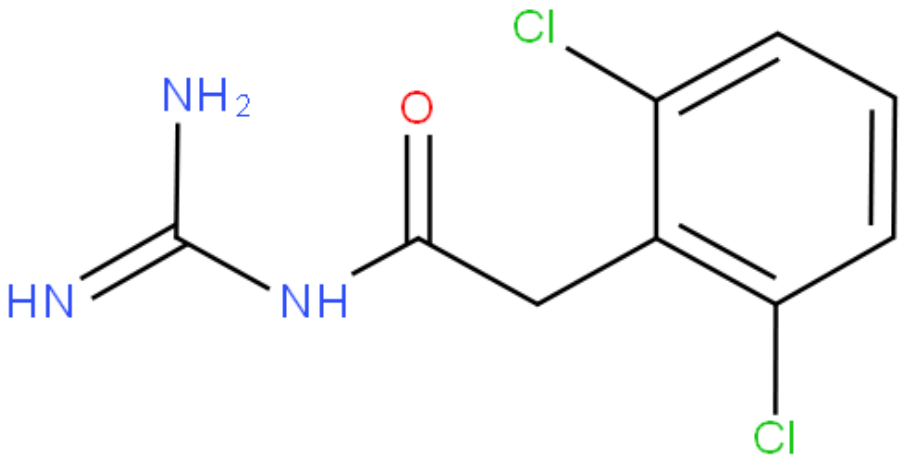
- encompasses hydroxy-substituted, keto-substituted or halo-substituted arylalkylamine; for example clenbuterol and bupropion





are to be classified in A61K 31/137.

However, if the keto-substitution is adjacent to the amino-group to give an amide, e.g. as in guanfacine

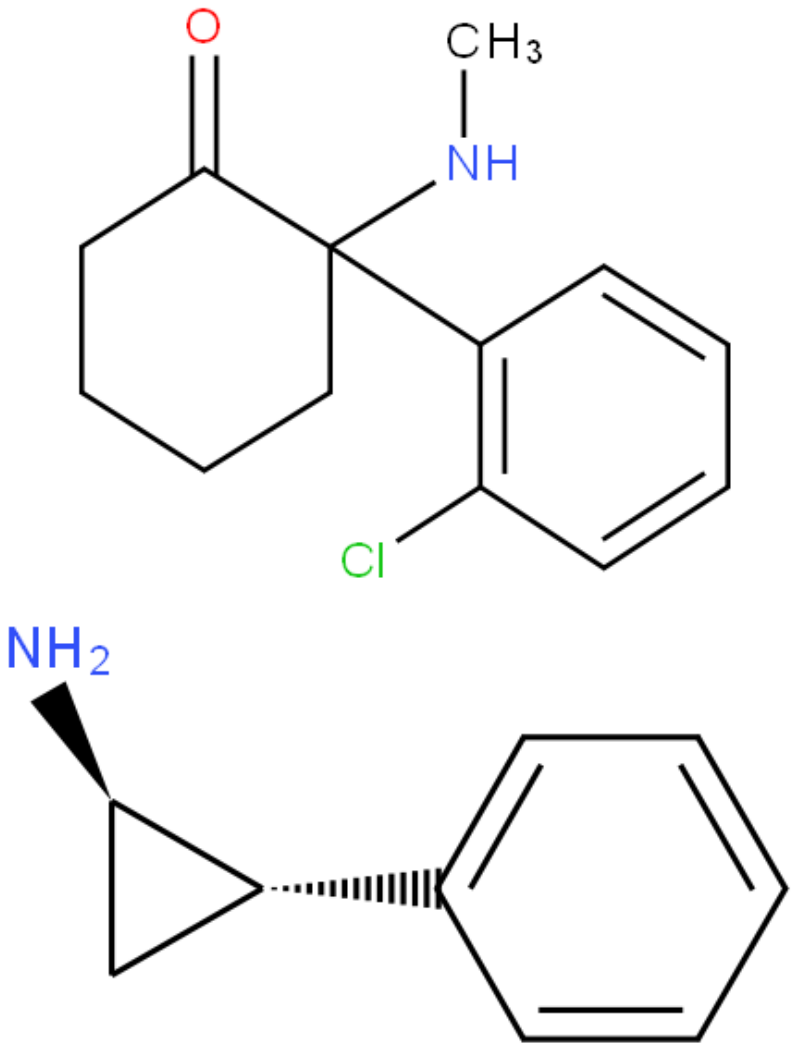


,

then the amido group would take precedence, thus the compound is not to be classified in A61K 31/137 nor in A61K 31/155 (guanidine), but in A61K 31/165 according to the last place rule.

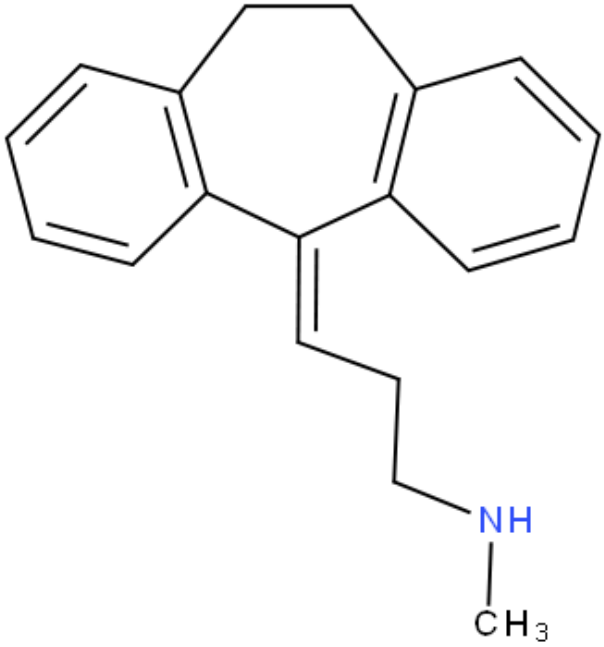
- does not encompass arylcycloalkylamine;

for example ketamine and tranylcypromine



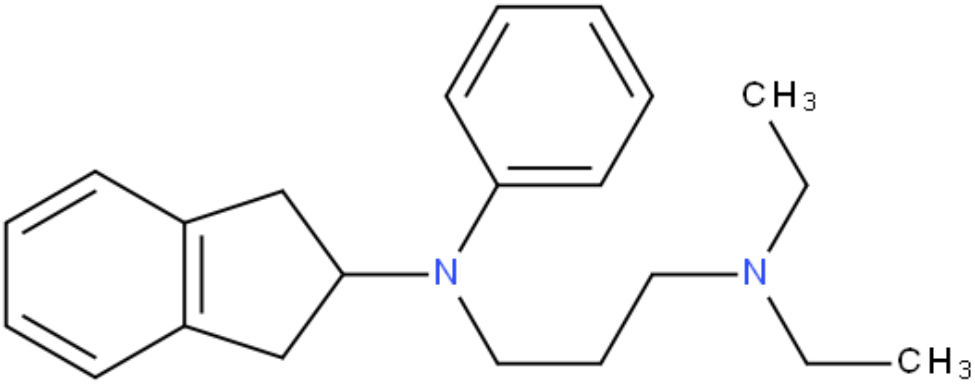
are to be classified in A61K 31/135 not in A61K 31/137.

- does not encompass arylcycloalkylamine; for example notriptyline



is to be classified in A61K 31/135 not in A61K 31/137.

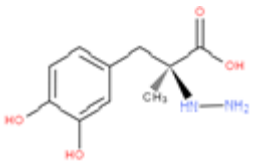
does not encompass N-aryl,N-alkylamine; for example aprindine



is to be classified in A61K 31/136 not in A61K 31/137.

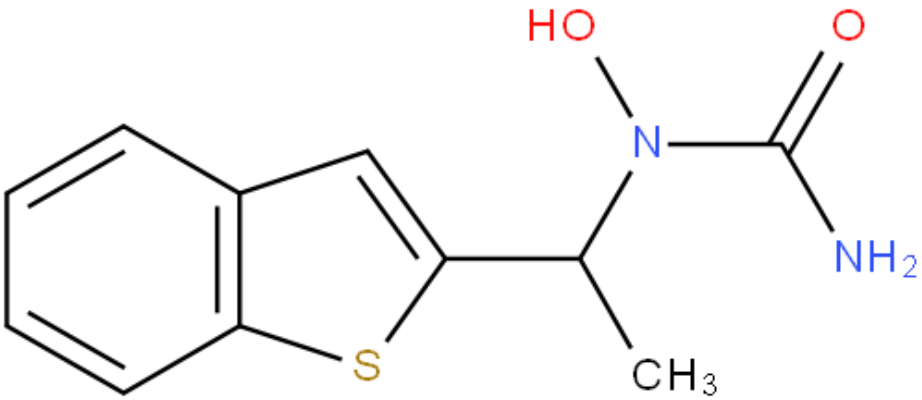
A61K 31/198

This subgroup also encompasses amino acid derivatives such as e.g. carbidopa, since the amino acid portion takes precedence over the hydrazino group.



A61K 31/33

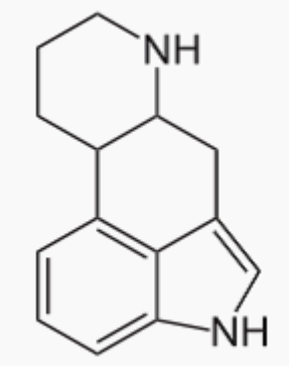
Heterocyclic compounds having e.g. "sulfur as a ring heteroatom" and "having five-membered rings" (A61K 31/381), means that the sulfur containing ring must be a five-membered one. For example zileuton, which contains a carbocyclic six-membered ring, is to be classified in A61K 31/381 and not in A61K 31/382.



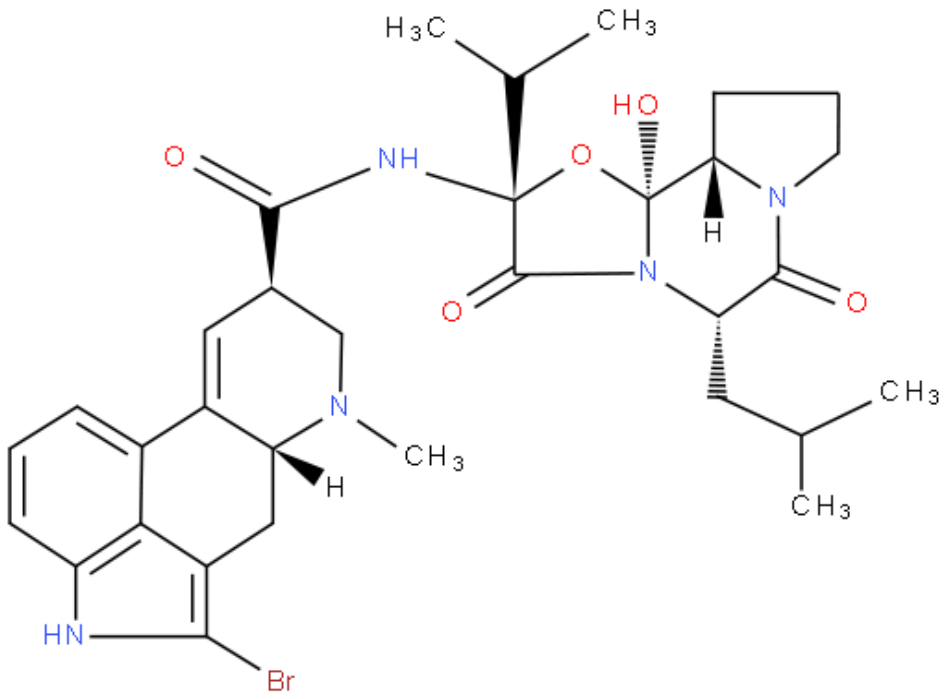
The same applies to all subclasses relating to heterocyclic compounds.

A61K 31/48

Ergoline derivatives include a class of compounds characterized by the ring system

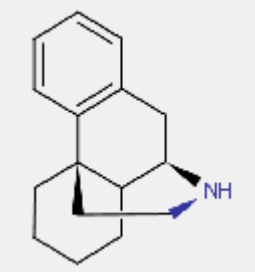


As explicitly mentioned in the scheme, the subclass for the ergoline ring system A61K 31/48 takes precedence over A61K 31/495 "six membered rings with two nitrogen atoms as the only ring heteroatoms" and corresponding subclasses. For example bromocriptine is to be classified in A61K 31/48 and not in A61K 31/495.

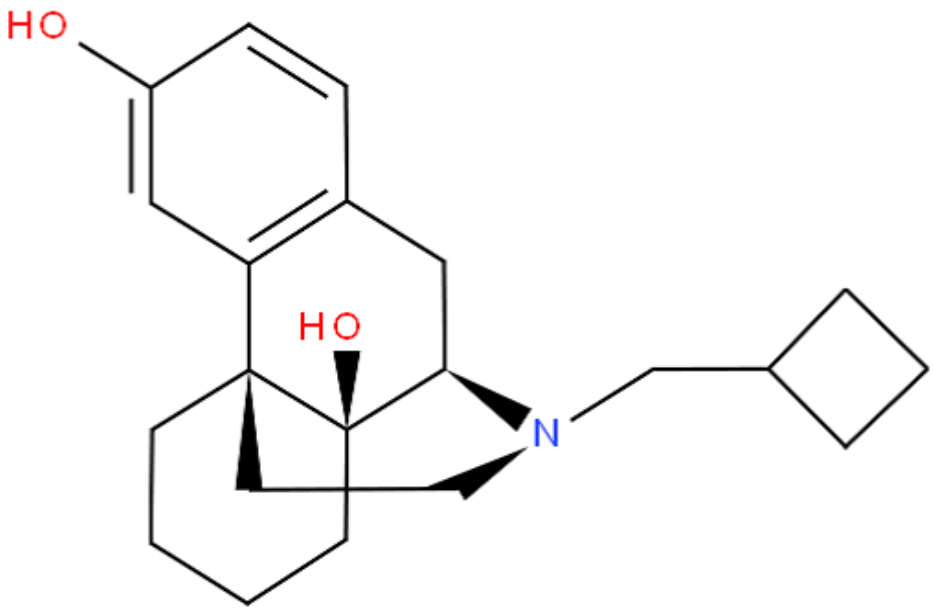


A61K 31/485

Morphinan derivatives include a class of compounds characterized by the ring system below (with or without an oxygen bridge)

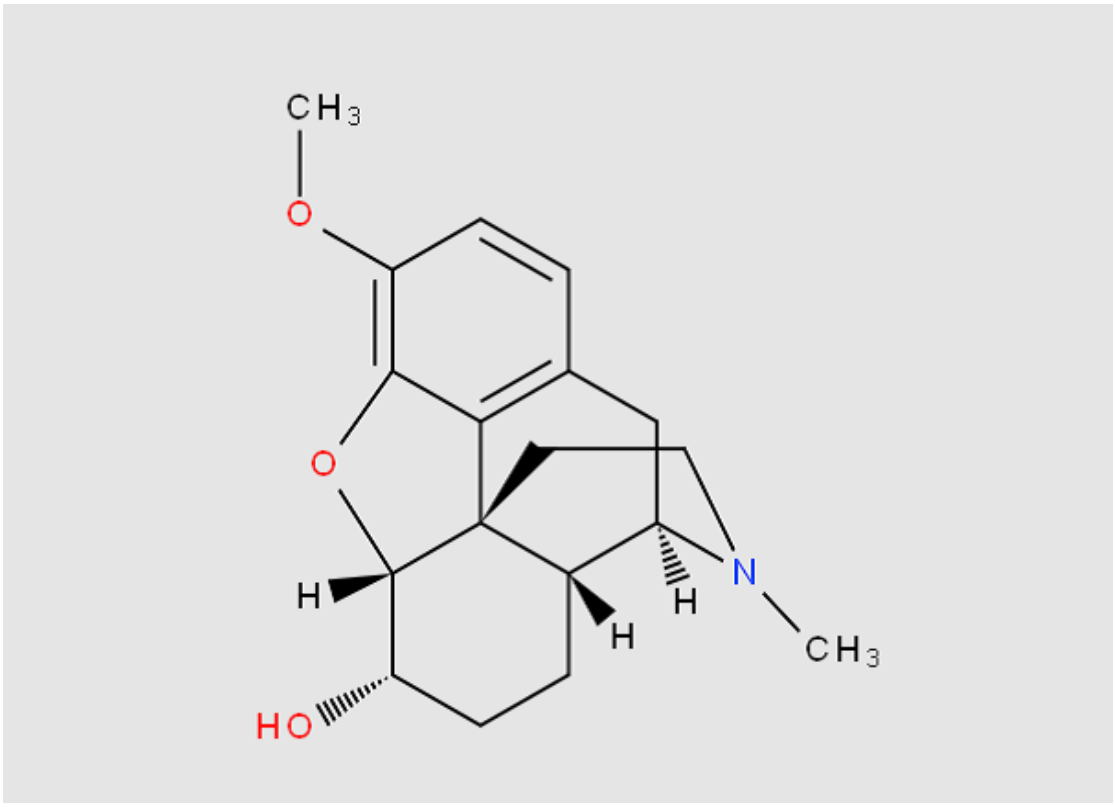


e.g. butorphanol



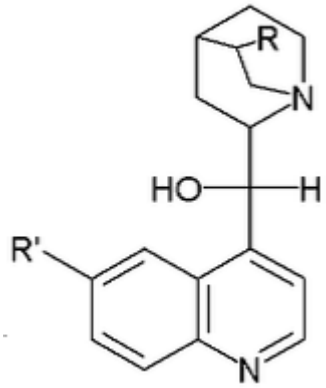
;

; dihydrocodeine



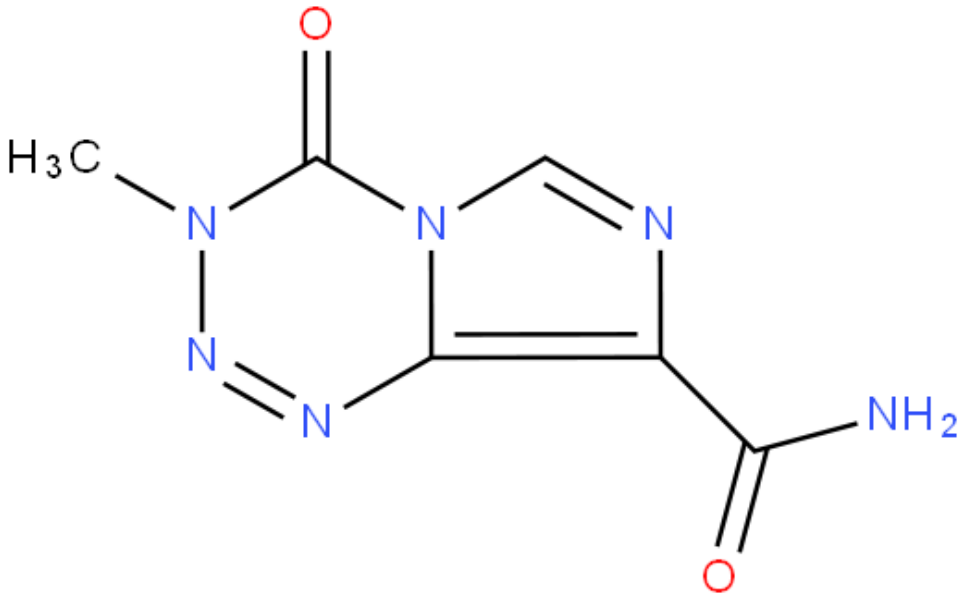
A61K 31/49

Chinconane derivatives are characterized by the ring system



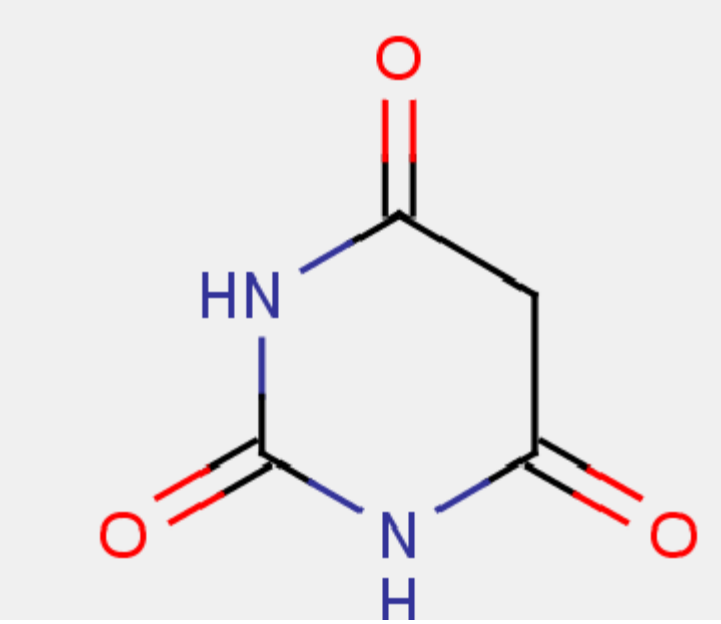
A61K 31/495

As no specific subgroup exists for compounds having six-membered rings with four nitrogens as the only ring heteroatoms, it is agreed to place tetrazine and tetrazine-containing compounds in A61K 31/495, i.e. in the subgroup for compounds having six-membered rings with two nitrogen as the only ring heteroatoms. For example temozolomide is to be classified in this subgroup.

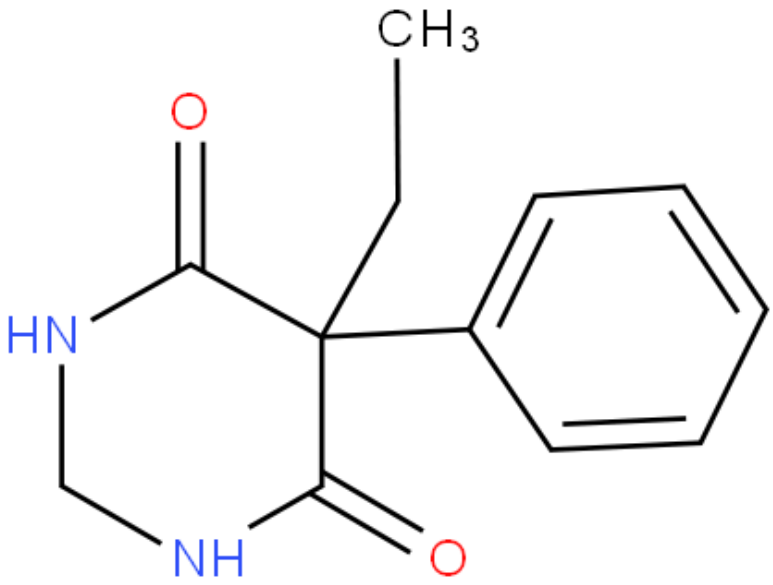


A61K 31/515

Barbituric acid derivatives share the structure below



Therefore, primidone is not to be considered a barbituric acid derivative since it is missing a carbonyl group (primidone is to be correctly classified in A61K 31/513).

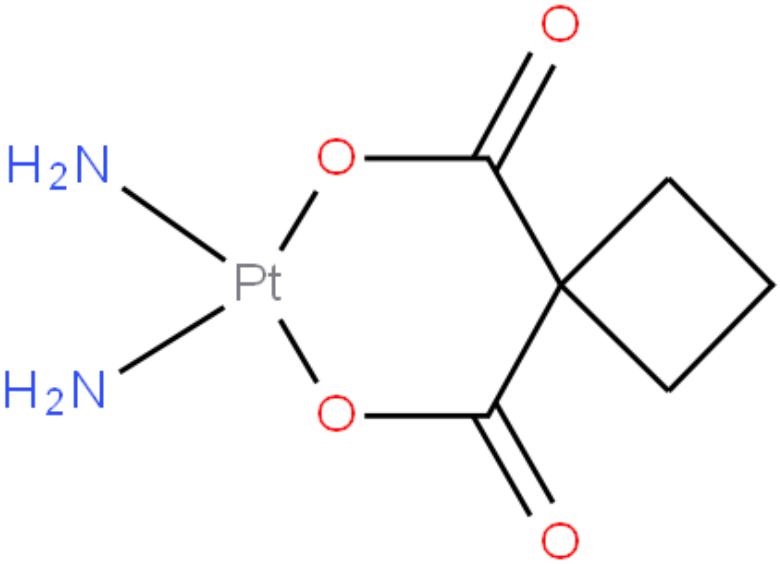


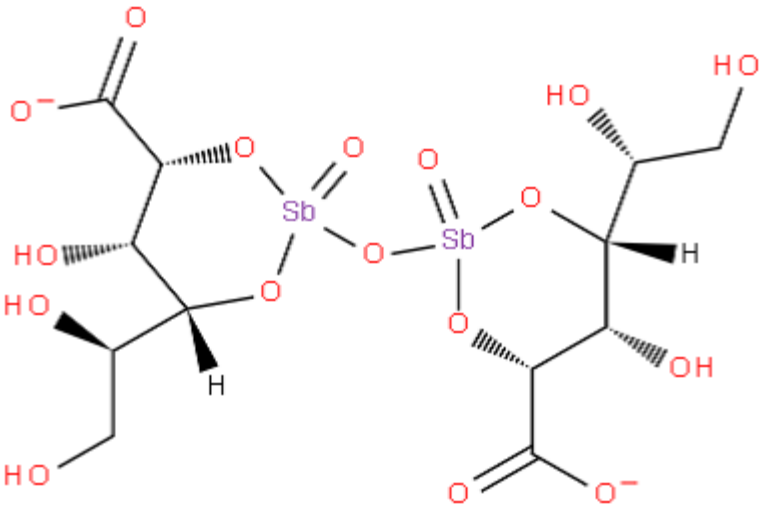
Moreover, the presence of the core structure of barbituric acid may not be sufficient per se in order to identify a compound as a barbituric acid derivative. In this subgroup, the classifier will not only take into account the extent of modification but also whether the compound shares the same pharmacological effect of barbituric acid, i.e. any of sedative, anaesthetic, anxolytic, hypnotic and anticonvulsant effect.

A61K 31/555

In addition to the examples explicitly referred to in the scheme, other examples e.g. carboplatin, oxaliplatin and sodium stibogluconate are also to

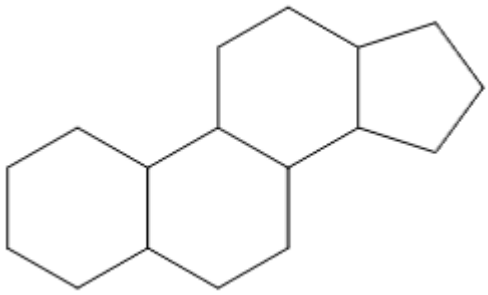
be classified here (not in A61K 33/00 nor in A61K 31/282 or A61K 31/29), since they are heterocyclic active compounds forming a complex with a heavy metal.





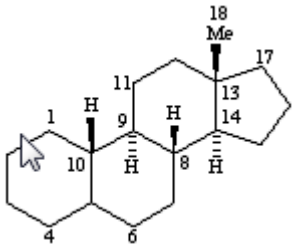
A61K 31/56 to A61K 31/585

The compounds in these subgroups have the following skeleton

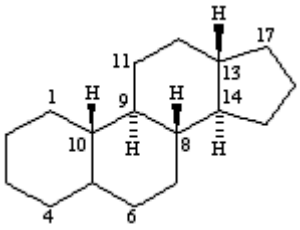


and are further subdivided according to the structure of

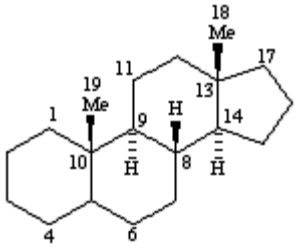
estranes



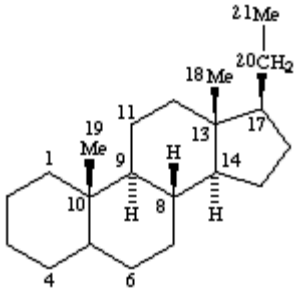
gonanes



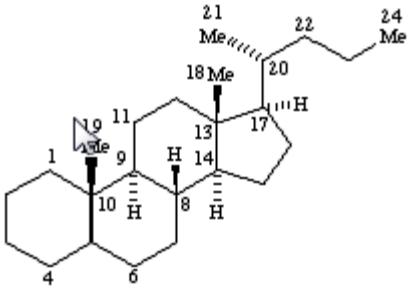
androstanes



pregnanes



cholanes

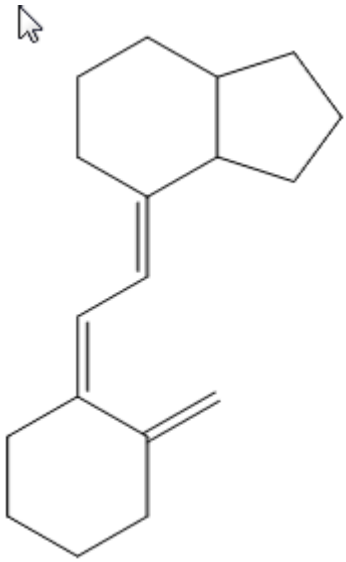


as well as according to the presence or absence of substitutions in position 10, 13, 17 and/or 21.

In subgroups /58 and /585, the additional ring can be isolated or condensed to the cyclopentanoperhydrophenantrene ring system.

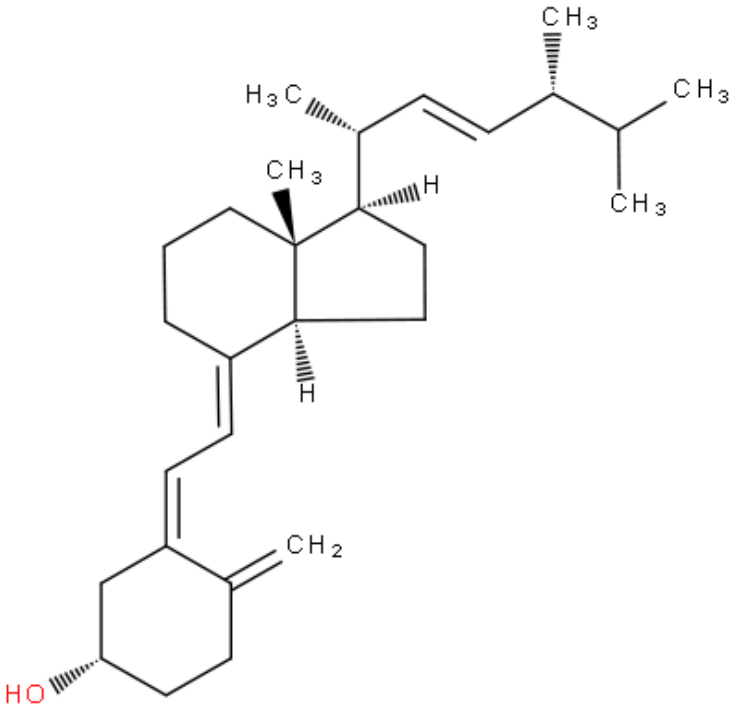
A61K 31/59 to A61K 31/593

The compounds in these subgroups have the following skeleton

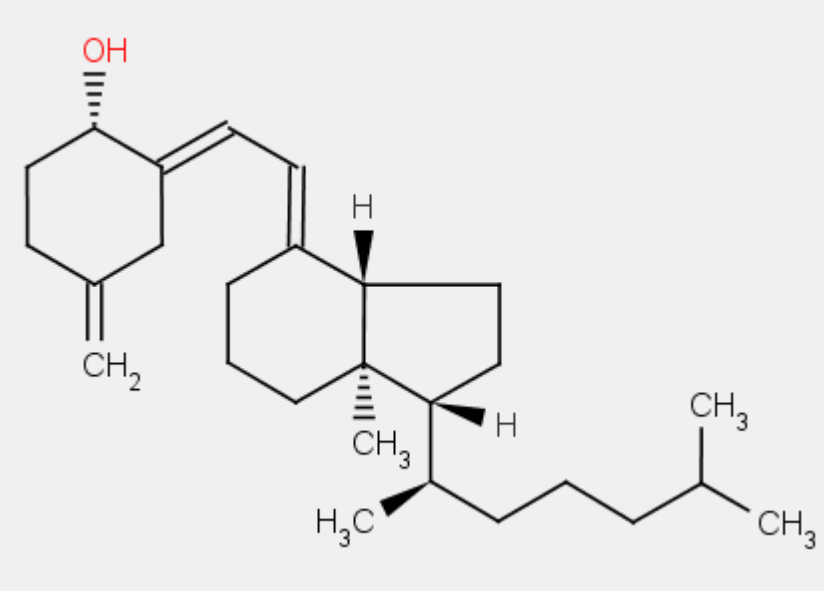


the difference between 9,10-secoergostane derivatives and 9,10-secocholestane derivatives being a double bond in the side chain.

ergocalciferol



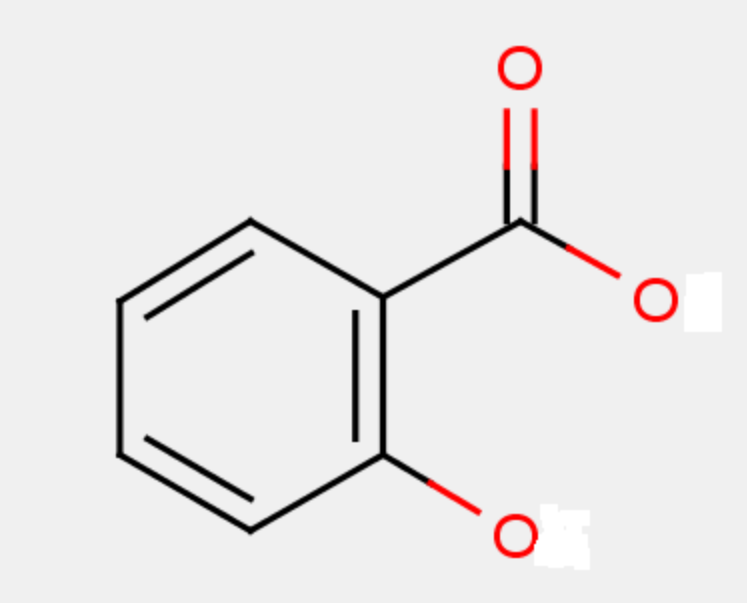
cholecalciferol



A61K 31/609 to A61K 31/625

These subgroups cover salicylic acid and derivatives thereof.

The presence of the core structure of the 2-hydroxybenzoic acid, i.e.



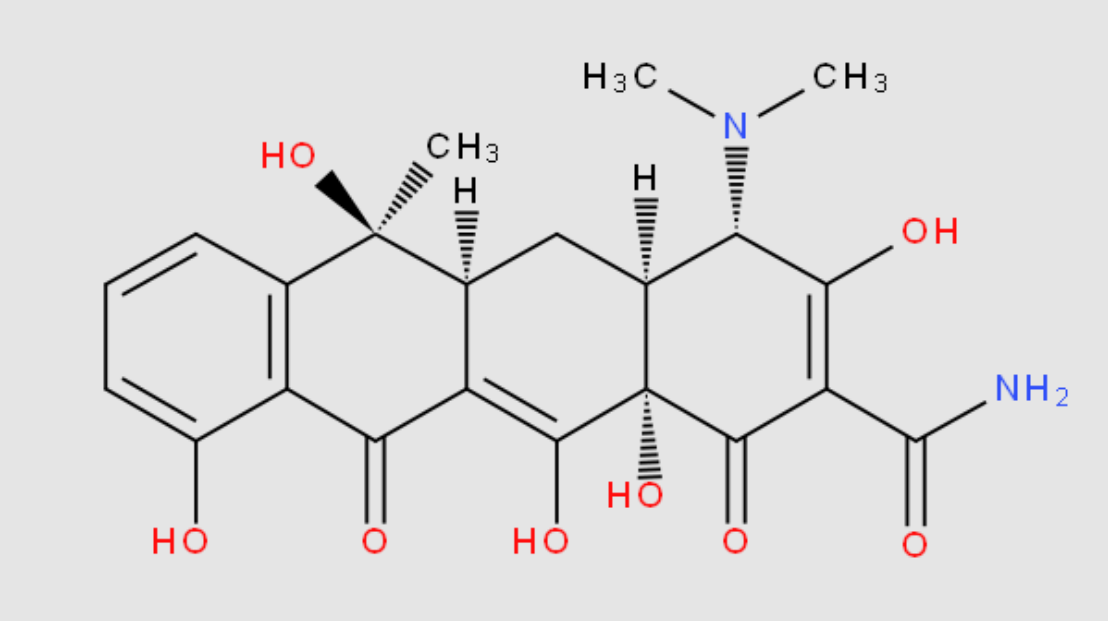
may not be sufficient per se in order to identify a compound as a salicylic acid derivative. In this subgroup, the classifier will not only take into account the extent of modification but also whether the compound shares the same pharmacological effect of salicylic acid, i.e. any of analgesic, antipyretic and antiinflammatory effect. Derivatives with a substitution on the benzene ring are also included in this group (e.g. diflunisal).

For instance, certain compounds are not to be considered salicylic acid derivative due to the extent of the modification and because they do not possess the pharmacological profile of salicylates, e.g. for example the

compounds labetalol (A61K 31/166), cisapride (A61K 31/4468), flecainide (A61K 31/4458), metoclopramide (A61K 31/166) and removipride (A61K 31/40).

A61K 31/65

The compounds in this subgroup share the core structure of tetracycline



A61K 31/7105

This subgroup also includes non-modified miRNA and snRNA.

A61K 31/713

This subgroup also includes siRNA and modified miRNA and snRNA.

Antisense nucleotides and non-coding nucleic acids are classified in C12N 15/00.

A61K 33/00

Medicinal preparations containing inorganic active ingredients

Definition statement

This subclass/group covers:
This main group covers:

Medicinal preparations containing inorganic active ingredients either alone or in a mixture with other active ingredients. Organic active compounds forming salts or complexes with heavy metals are also classified in A61K 33/00 according to the last place rule, unless explicit reference to the contrary is

made in the A61K 31/00 scheme (see below)

References relevant to classification in this subclass

This subclass/group does not cover:

This group does not cover the following:

Empty galenic formulations, i.e. only comprising carriers, additives, excipients	A61K 9/00, A61K 47/00
Hemin and hematin	A61K 31/555
Cyanocobalamin	A61K 31/714
Biomaterials	A61L
Disinfecting or sterilising contact lenses	A61L 12/00
For bandages, dressings or absorbent pads	A61L 15/00
Surgical sutures	A61L 17/00
Surgical adhesives or cements	A61L 24/00
For wound dressings, bandages, also liquid, gel, powder	A61L 26/00
For (coating of) grafts, prostheses	A61L 27/00
For other surgical articles, e.g. stents, embolization	A61L 31/00
Undifferentiated human, animal or plant cells, e.g. cell lines; Tissues; Cultivation or maintenance thereof; Culture media therefore	C12N 5/00
Detergent compositions	C11D

Informative references

Attention is drawn to the following places, which may be of interest for search:

Pharmaceuticals	A61K
Organic active ingredients	A61K 31/00
Active ingredients of undetermined constitution (i.e. natural products)	A61K 35/00
Active ingredients from algae, lichens, fungi or plants	A61K 36/00
Peptides, proteins	A61K 38/00
Antigens or antibodies, vaccines, adjuvants	A61K 39/00
Homeopathy, thermotherapy, photodynamic therapy, photoactivable drugs	A61K 41/00
Mixtures of active ingredients without chemical characterisation	A61K 45/06
Characterized by non-active ingredients e.g. carriers, inert additives, excipients ...	A61K 47/00
Conjugates; targeted drugs	A61K 47/48
Gene therapy	A61K 48/00
Radioactive substances	A61K 51/00
Diagnosis	
Testing in vivo, e.g. screening, contrast agents, ultrasound	A61K 49/00
Radioactive substances	A61K 51/00
In vitro diagnosis	G01N
Medicine/pharmacy - mechanical	A61F A61M A61N

aspects	
Stents	A61F 2/06P
Contraceptive devices	A61F 6/00
Ophthalmic implants	A61F 9/0017
Bandages, dressings, absorbent pads	A61F 13/00
Tampons (also medicated)	A61F 13/20
Making transdermal patches	A61F 2013/0296
Electrotherapy	A61N 1/00
Iontophoresis	A61N 1/30
Magnetotherapy	A61N 2/00
Other medical	
Dentistry	A61K 6/00
Sterilization methods	A61L 2/00
Medical informatics	G06F 19/00M
Contact lenses	G02C 7/04
Other human necessities	
Cosmetics	A61K 8/00
Biocides, pest repellants or attractants	A01N
Animal feeding-stuffs	A23K 1/00
Food or functional food i.e food containing ingredients performing an additional function e.g. disease prevention (neutraceuticals)	A23L

General chemistry	
Quaternary ammonium compounds	C07C 211/62
Phosphatides	C07F 9/10
Dendrimers	C08G 83/002
Macromolecular gels	C08J 3/075

Special rules of classification within this group

In this group classification is according to the last place priority rule.

In this group no distinction is made between Invention and Additional information.

In other words all information, whether it be invention or additional, is classified in as far as it relates to material which the classifier considers likely to be of importance for future reference. Trivial or general state-of-the-art disclosure is not classified.

Therapeutic use: an A61K 33/00 classification symbol is given only if the inorganic ingredient has a physiological, pharmacological or biological effect.

Combinations/mixtures: Give a classification symbol followed by A61K 2300/00 for each active ingredient in the mixture. For each mixture containing at least one active ingredient without chemical characterisation (e.g. functional feature), A61K 45/06 is additionally to be given.

A61K 35/00

Medicinal preparations containing material or reaction products thereof with undetermined constitution

Definition statement

This subclass/group covers:

Medicinal preparations containing various tissues, cells, organisms, materials or reaction products thereof, also with undetermined constitution, as well as their first or further medical use.

A61K 35/00 class is given only if the therapeutic effect is clearly attributed to the "active substance" of the medicinal preparation, and is an essential part of the disclosure.

Relationship between large subject matter areas

The main group A61K 35/00 may overlap with many other subclasses or main groups relating to medicinal preparations, or preparations comprising the tissues, cells organisms or materials, where the effect is neither mainly nor only pharmaceutical. The most relevant areas are genetically modified cells, viral or cellular vaccines, and antibodies.

- Microorganisms and cells used for vaccination only (no other therapeutic effect): only give a A61K 39/00 class.

- Genetically modified cells: Compositions comprising genetically modified cells are classified under the corresponding cell or organ if the genetic modification is a routine manipulation and not the invention.

Gene therapy: A61K 48/00. Genetically modified cells: C12N 5/10.

- Isolated cells: If cells are used as hosts or vectors (no therapeutic activity), no A61K 35/00 class is given. Cells that are transplanted after a culturing step are classified in A61K 35/00 and C12N 5/00.

- Lymphocytes: Overlap with vaccines: Compositions comprising cells of the myeloid line and lymphocytes, when activated by a specific antigen (for example antibodies), are classified in A61K 39/00, since this represents a vaccine. Therapeutic combinations of antibodies (or fragments thereof) and blood derived cells are classified in A61K 35/00, A61K 39/395 and C07K 16/00.

- Viruses: Pharmaceutical compositions comprising a virus (and its medical use) are classified in A61K35 if it is not a viral vaccine. If the therapeutic effect is clearly and exclusively a vaccine effect, no A61K 35/00 class is given.

Documents relating to viruses per se (without medical use) are classified in C12N 7/00; viral proteins per se C07K 14/005; use of virus as a vector C12N 15/86; use of virus or part thereof as vaccine A61K 39/12; therapeutic use of a viral protein A61K 38/16.

Preparations comprising a modified virus are classified in C12N 7/00; the ICO code A61K 35/13 is given if a therapeutic activity (not vaccine) is suggested. If a therapeutic activity (not vaccine) is disclosed for the modified virus, it is also classified in A61K 35/00.

- Bacteria: If bacteria are claimed per se, they are classified in C12N 1/00 and the Indexing Code A61K 2035/11 is given.

- Toxins of bacteria, snakes, scorpions, fish etc: documents related to protein toxins of these animals only are classified in A61K 38/00. No A61K 35/00 class is given unless the animal or part thereof is also part of the therapeutic composition or use.

- When the composition comprises a special galenic form, it is also classified in A61K 9/00.

- Combinations with other substances: are classified in all appropriate subgroups. For example, combination of lactobacillus and a protein: give A61K 35/74 class and also classify in A61K 38/00.

- For each mixture containing at least one ingredient without chemical characterization (e.g. functional feature), A61K 45/06 is to be given.

- When a compound is only and exclusively defined in the application by means of a functional definition, and no specific examples at all are provided, and it is unclear whether the functionally defined compound would be a compound according to any of A61K 31/00, A61K 33/00, A61K 35/00, A61K 36/00, A61K 38/00 or A61K 39/00, the main group A61K 45/00 is to be assigned.

References relevant to classification in this subclass

This subclass/group does not cover:

This group does not cover the following:

Chemical compounds as such	C01-C09
Medical use of chemical compounds	A61K 31/00
Medical use of peptides	A61K 38/00
Genetic engineering of cells, cell lines per se	C12N 5/00
Transgenic animals	A01K 67/00
Bacteria claimed per se	C12N 1/00
Microorganisms used for vaccination	A61K 39/00
Screening methods	G01N 33/00
Plants	A61K 36/00
Food	A23L 1/00
Orthopaedic methods for treatment for bones or joints	A61F 5/00
Medicinal preparations obtained by treating materials with wave energy or particle radiation	A61K 41/00

Drug delivery systems	A61K 47/00
Vaccines	A61K 39/00; C12N 7/00
Bandages, dressings, surgical articles	A61L 15/00; A61L 27/00; A61L 29/00, A61L 31/00; A61L 33/00
Viruses per se, purification; virus vaccines	A61K 39/00; C12N 7/00
Algae, Fungi, e.g. yeast	A61K 36/00
Compound defined by means of a functional definition	A61K 45/00

*

Informative references

Attention is drawn to the following places, which may be of interest for search:

Furthermore, a class in addition to a A61K 35/00 from the list below might be necessary depending on the subject-matter to be classified:

Medicinal preparation characterised by physical, galenic form	A61K 9/00
Food or "functional" food, e.g. probiotic bacterial where a medical use and a food is claimed.	A23L/00
Medical use of peptides originating from organisms falling under A61K 35/00	A61K 38/00
Modified cells with medical use	C12N 5/00
Modified virus with medical use (not vaccine)	C12N 7/00
Cosmetic preparations	A61K 8/00
Medicinal preparations containing inorganic active ingredients	A61K 33/00

Special rules of classification within this subclass

- Relevant subject-matter that is exemplified, but not claimed, should also be classified. For very long, exhaustive lists of proteins claimed for a therapeutic use, if it appears from the dependent claims/description/examples that only few proteins are preferred/well described, only these proteins will be given a class.

- Mixtures/Combinations comprising several actives classified in A61K 35/00:

Give a classification symbol followed by A61K 2300/00 for each active ingredient in the mixture to create the corresponding Combination-set.

For example, a composition comprising lactobacilli and propolis extract will get the classes A61K 35/74 and A61K 35/64 and A61K 2300/00.

For each mixture containing at least one ingredient without chemical characterisation (e.g. functional feature), A61K 45/06 is to be given.

- Compositions comprising cells or non-embryonic stem cells: if the cells are characterized, give the class of the corresponding tissue, i.e. Pancreatic stem cells are classified in A61K 35/39, Pancreas. The most relevant types of stem cells relating to different tissues are specifically indicated in the respective classes.

- Isolated cells that are transplanted without a culturing step, in order to obtain a therapeutic effect are classified in A61K 35/00.

- Mesenchymal stem cells are always classified in A61K 35/28, irrespective of the origin.

- Important aspects of the invention mentioned only in the description deserve a class as well.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Blue algae	cyanobacteriae
Bacteriophage	virus
Protozoa	single cell animal-like eukaryotic organisms, e.g. flagellates (Giardia), amoeboids, sporozoans (Plasmodium)

ICO codes used:

A61K 35/00 Medicinal preparations comprising living biological materials, e.g. virus, cells, tissue, organs

K61K 53/11 Medicinal preparations comprising living procariotic cells

A61K 35/12 Medicinal preparations comprising living eucariotic cells

A61K 2035/122 ..for inducing tolerance or suppression of immune responses

A61K 2035/124.. the cells being hematopoietic, bone marrow derived or blood cells

A61K 2035/126.. immunoprotecting barriers, e.g. jackets, diffusion chambers

A61K 2035/128… capsules, e.g. microcapsules

A61K 35/13 Medicinal preparations comprising living viruses

A61K 36/00

Medicinal preparations containing material from algae, lichens, fungi or plants

Definition statement

This subclass/group covers:

This main group covers:

Medicinal preparations containing material from algae, lichens, fungi or plants, or derivatives thereof, e.g. traditional herbal medicines, also of undetermined constitution.

A61K 36/00 is given only if a therapeutic effect is clearly attributed to the "active substance" of the medicinal preparation, and is an essential part of the disclosure. In particular:

Medicinal formulations or compositions per se containing therapeutically active material from algae, lichens, fungi or plants

Material from algae, lichens, fungi or plants for use in any first or further medical application

Use of a material from algae, lichens, fungi or plants for the manufacture of a medicament for the treatment of a pathological condition

Relationship between large subject matter areas

Purified active components: if the active component has been isolated from material from algae, lichens, fungi or plants and the chemical structure is well-defined and can be classified under A61K 31/00, a class under A61K 36/00 together with the appropriate A61K 31/00 class is given.

Purified proteins, peptides or lectins: documents related to isolated plant peptides or proteins are classified in A61K 38/00. An additional A61K 36/00 class is given if the source of the purified compound can be clearly attributed to a specific material from algae, lichens, fungi or plants.

Claims to a new galenic formulation of a known material for use in therapy are classified in A61K 9/00. An additional A61K 36/00 class is given for the material only in case of a specific material from algae, lichens, fungi or plants. No A61K 36/00 class is given if only unspecific material (for example "plant extracts", "essential oil") is mentioned.

Cosmetic preparations containing material from algae, lichens, fungi or plants are classified in A61K 8/00. An additional A61K 36/00 class is given for the material only in case of a therapeutic effect.

Food containing material from algae, lichens, fungi or plants is classified in A23L 1/00. An additional A61K 36/00 class is given for the material only in case of a therapeutic effect (functional food).

Bacteria: If bacteria are claimed per se, they are classified in C12N 1/00, medicinal preparations with bacteria are classified in A61K 35/74.

Blue algae (Spirulina) are cyanobacteriae and classified in A61K 35/74.

Honey, beeswax, propolis: A61K 35/64

Genetically modified cells: Compositions comprising genetically modified cells are classified in A61K 48/00 (Gene therapy), or C12N 5/10 (Genetically modified cells).

Separation procedures as such, not relating to a medicinal preparation or a therapeutic use, are classified in B01D.

-When a compound is only and exclusively defined in the application by means of a functional definition, and no specific examples at all are provided, and it is unclear whether the functionally defined compound would be a compound according to any of A61K 31/00, A61K 33/00, A61K 35/00, A61K 36/00, A61K 38/00 or A61K 39/00, the main group A61K 45/00 is to be assigned.

References relevant to classification in this main group

This subclass/group does not cover:

This group does not cover the following:

Chemical compounds as such	C01-C09
Separation or extraction processes as such	B01D
Medical use of chemical compounds	A61K 31/00

Medical use of peptides	A61K 38/00
Genetic engineering of cells, cell lines per se	C12N 5/00
Cosmetic preparations containing material from algae, lichens, fungi or plants	A61K 8/00
Bacteria claimed per se	C12N 1/00
Microorganisms used for vaccination	A61K 39/00
Screening methods	G01N 33/00
Medicinal preparations containing material of undetermined constitution	A61K 35/00
Food	A23L 1/00
Medicinal preparations obtained by treating materials with wave energy or particle radiation	A61K 41/00
Drug delivery systems	A61K 47/00
Vaccines	A61K 39/00; C12N 7/00
Bandages, dressings, absorbent pads containing material from algae, lichens, fungi or plants	A61L 15/40
Viruses per se, purification; virus vaccines	A61K 39/00; C12N 7/00
Compound defined by means of a functional definition	A61K 45/00

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Informative references

Attention is drawn to the following places, which may be of interest for search:

Medicinal preparation characterised	A61K 9/00

by physical, galenic form	
Food or "functional" food, e.g. plant material or extracts where a medical use and a food is claimed	A23L 1/00
Medical use of peptides originating from organisms falling under A61K 36/00	A61K 38/00
Modified cells with medical use	C12N 5/00
Cosmetic preparations e.g. plant material or extracts where a medical and a cosmetic use is claimed	A61K 8/00
Medicinal preparations containing inorganic active ingredients	A61K 33/00

Special rules of classification within this main group

Each specific active component is classified according to its systematic name in A61K 36/00. The last place rule does not apply.

A class within this group is only given for the use of specific compounds, i.e. those present in the claims or exemplified in the description, and therapeutically active agents (which is not always the case, e.g. essential oils used as perfume or taste masking compounds).

Relevant subject-matter that is exemplified, but not claimed, should also be classified. Important aspects of the invention mentioned only in the description deserve a class as well.

Classification should be restricted to the relevant or essential part of the disclosure. For very long lists (10 and more) of material claimed for a therapeutic use, and if it appears from the dependent claims/description/examples that only few plants are preferred/well described, classification should be limited to the compounds tested, or the more significant compounds.

A general concept (e.g. "Compound X for use in treating disease Y, wherein X is a plant, an antibody or a chemical compound" with no specific compounds given) does not get any A61K 36/00 class.

The medicinal preparation can also be in the form of a product by process claim, reflecting a specific extraction process.

If the extraction process is claimed and considered relevant or an essential

part of the disclosure, at least one additional Indexing Code in A61K 36/00 is given.

Combinations/mixtures: a Combination-set is generated having after "," the symbol A61K 2300/00 for each active ingredient in the mixture, for example (A61K 31/60,A61K 2300/00)

For each mixture containing at least one ingredient without chemical characterisation (e.g. functional feature), A61K 45/06 is to be given.

For fermented preparations the Indexing Code A61K 36/19 is to be added:

A medical preparation with red fermented rice will get A61K 36/899 (rice), A61K 36/062 (Monascus) and A61K 36/19 (fermentation process)

Pollen (not further specified): A61K 36/00

Wood tar, sap or resin (not further specified): A61K 36/00

A61K 38/00

Medicinal preparations containing peptides, proteins or their corresponding nucleic acids

Definition statement

This subclass/group covers:

Peptides, proteins or their fragments (from dipeptides onwards), or the corresponding nucleic acids encoding these peptides/proteins, when claimed for use in the therapy of humans or animals, i.e. when claimed as therapeutically active component.

In particular:

Medicinal formulations or compositions per se containing therapeutically active peptides, proteins.

Peptides, proteins for use in any first or further medical application.

Use of a peptide, protein for the manufacture of a medicament for the treatment of a pathological condition.

Relationship between large subject matter areas

"Novel" proteins, peptides, i.e. claimed per se, are classified under the proper C07K subgroup. Further claims to their use in therapy are given the Indexing Code A61K 38/00 to A61K 38/12.

For the use of proteins of known sequence and given source, the appropriate A61K 38/00 is given together with an A61K 35/00 class for the source if this is an important aspect of the invention.

For the use of proteins of unknown sequence and known source: A61K 38/02 and the appropriate A61K 35/00.

Mixtures of a "novel" protein/peptide and of a "known" one for use in therapy are given an A61K 38/00 class for each active component (see also under the point "Special rules for classification").

For each mixture containing at least one active ingredient without chemical characterisation (e.g. functional feature, e.g. antiphlogistics, anti-cancer agent), A1K45/06 is to be given.

Claims to "enzyme inhibitors" for use in therapy, without any specific example or without an identified peptidic structure, i.e. "reach-through" claims, are not covered by A61K 38/00 but classified in C12Q 1/00 or G01N 33/00. (Note: A "reach-through" claim is defined as a claim attempting to obtain protection for a chemical product (and also uses thereof, compositions thereof etc.) by defining that product functionality in terms of its action e.g. an agonist, antagonist, inhibitor of a biological target such as an enzyme or receptor).

In the case of peptidic enzyme inhibitors wherein the chemical structure is well-defined and can be classified under an A61K 31/00 class (e.g. peptidomimetic protease inhibitor of dipeptidic structure with heterocycles), A61K 38/005 or A61K 38/55 together with the appropriate A61K 31/00 class are given. This applies in the rare cases where a compound could be classified in both groups and thus could be retrieved either via the A61K31 classification scheme or the A61K38 classification scheme, bearing in mind that no information should be lost during the classification pocess".

Stabilisation of a specific active protein/peptide with another substance for use in therapy are classified under the appropriate A61K 38/00 class for the protein/peptide and sent for further classification to A61K 47/42, or A61K 47/48 in case of conjugates.

Claims to a new galenic formulation of a known protein/peptide for use in therapy are sent for classification to A61K 9/00. An A61K 38/00 class is given for the protein/peptide only in case of a precise protein or family of proteins. No A61K 38/00 class is given to an exhaustive list of unrelated and unspecific proteins, instead an Indexing Code A61K 38/00 is given.

Gene therapy: an appropriate A61K 38/00 class is given for the protein/peptide used in the gene therapy method, together with an A61K 48/00 class. The same applies for the use of a nucleic acid encoding a specific protein, or of cells modified to produce a specific protein, for use in gene therapy.

Vaccines (comprising peptides or fragments thereof): If the therapeutic effect is clearly and exclusively a vaccine effect, no A61K 38/00 class is given.

References relevant to classification in this group

This subclass/group does not cover:

Enzymes per se	C12N 9/00
Stabilisation of proteins in general	A61K 47/42 or A61K 47/48
Peptides forming the non active part of a conjugate	A61K 47/48238
Non-coding nucleic acids, e.g. ribozymes, antisenses	C12N 15/11B
Antibodies	C07K 16/00, A61K 2039/505
Vaccines	A61K 39/00
Single amino acids or their corresponding nucleic acids for use in therapy	A61K 31/00
NMR contrast preparations containing peptides	A61K 49/14
Preparations containing radioactive peptides for use in therapy	A61K 51/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Cosmetic preparations containing peptides	A61K 8/64
Medicinal preparations characterised by physical form	A61K 9/00
Medicinal preparations containing material of undetermined constitution	A61K 35/00
Proteins/peptides per se	C07K
Methods for the preparation of peptides	C07K 1/00
Bandages, dressings, surgical articles involving proteins	A61L 15/35, A61L 24/10, A61L 26/0028, A61L 27/22, A61L 29/044, A61L 31/043, A61L 33/00

"Functional" food	A23L

Special rules of classification within this group

Each specific active component is classified according to the last place rule.

A fragment of a protein is classified under the protein from which it derives, otherwise under its length. (Note: A fragment of a protein is classified under the protein from which it derives as a priority, if known. If the protein from which the fragment derives is not identified in the document to be classified, the fragment will be classified according to its length). Protein fragments less than 5 amino acids long are additionally classified under A61K 38/043 to A61K 38/07.

A nucleic acid is classified under the protein it encodes.

Classification within this group is only given for the use of specific compounds, i.e. those present in the claims or exemplified in the description, as well as active agents (which is not always the case, e.g. proteins used as carriers).

The A61K 38/00 scheme is mostly (with exceptions) aligned with the C07K 2/00 to C07K 14/00 schemes, hence to find the appropriate A61K 38/00 subgroup to be given to a protein used in therapy, the procedure consists of checking the place of said protein in the C07K scheme and apply the corresponding place, if correct and justified, in the A61K 38/00 scheme.

For very long, exhaustive lists of proteins claimed for a therapeutic use, if it appears from the dependent claims/description/examples that only few proteins are preferred/well described, only these proteins will be given a class.

A general concept (e.g. "Compound X for use in treating disease Y, wherein X is a protein, an antibody or a chemical compound" with no specific compounds given) does not get any A61K 38/00 class. (Note: If a document does not give a single, concrete example of a peptidic/proteic compound, no A61K38 class is given. A61K 38/02 is for compounds of peptidic or proteic nature but of undefined length, e.g. polymers of repeated motifs of aminoacids of undefined length, but nevertheless disclosed in the document.

In principle all specific compounds mentioned in the claims are classified. However, when there are too many compounds, as in the case of lengthy lists, classification should be limited to a reasonable number of assignments covering e.g. the compounds tested, or the more significant compounds. Any generalisation to the next hierarchically higher level should be avoided.

Preparations comprising enzymes are classified A61K 38/43 to A61K 38/54, followed by the Indexing Code C12Y for the specified enzyme(s). For example, a preparation comprising alpha-galactosidase is classified A61K 38/47 (i.e. Hydrolases acting on glycosyl compounds) and C12Y 302/01022 (i.e. alpha-galactosidase EC 3.2.1.22).

Enzyme inhibitors (A61K 38/005 and A61K 38/55) are classified within this group only if they are of peptidic structure and not derived from the enzyme itself. If the inhibitor is directly derived from the enzyme sequence itself, like for example an inhibitory enzyme fragment, it is classified under the enzyme from which it is derived (A61K 38/43 to A61K 38/54). The concept "enzyme inhibitors" without any specific example or given peptidic structure does not deserve a class within this group.

Mixtures/Combinations: a classification symbol is given for each active ingredient, followed by A61K 2300/00 (Indexing Code for mixtures) to create the corresponding Combination-set. For each mixture containing at least one ingredient without chemical characterisation (e.g. functional feature), A61K 45/06 is to be given.

Fusion peptides are classified in the classes of their components.

Important aspects of the invention mentioned only in the description deserve a class as well.

A61K 39/00

Medicinal preparations containing antigens or antibodies (materials for immunoassay G01N33/53)

Definition statement

This subclass/group covers:

This groupcovers:

The use of antigens or antibodies in medicinal preparations for immunization..

References relevant to classification in this group

This subclass/group does not cover:

The hypothetical use of new proteinaceaous antigens for immunization	C07K 14/00 or C12N 9/00 according the origin of the antigen in combination with A61K 39/00
Gene therapy	A61K 48/00
Material for immunoassay	G01N 33/53

Informative references

Attention is drawn to the following places, which may be of interest for search:

Viral peptides having more than 20	C07K 14/005 and/or C12N7xx/xxxx22

amino acids	defining the origin of the viral peptide
Bacterial peptides having more than 20 amino acids	C07K 14/195 and subgroups further defining the origin of the bacterial peptide
Fungal peptides having more than 20 amino acids	C07K 14/37 and subgroups further defining the origin of the fungal peptide
Animal/human peptides having more than 20 amino acids	C07K 14/435 and subgroups further defining the origin of the animal/human peptide

Special rules of classification within this group

In ECLA, an important limitation for the classification in A61K 39/00 has been introduced, in comparison with the IPC :

The medicinal use of new proteinaceous antigens hypothetically useful for vaccination is classified only in C07K 14/00 or C12N 9/00, according to the origin of the protein, with addition of the Indexing Code A61K 39/00.

The classification of medicinal preparations containing antibodies (A61K 39/395 and subgroups) as active ingredients is given in a separate FCR concerning antibodies (C07K 16/00).

What follows below is the classification strategy for the medicinal use of antigens for which vaccination has been sufficiently disclosed.

Documents relating to the medicinal use of antigens are classified in A61K 39/00, mainly according to the origin of the antigen.

Indexing Codes (A61K 2039/51 - A61K 2039/64) are used for classifying further relevant and sufficiently disclosed aspects of the immunogenic compositions.

Preparations containing archeal antigens for vaccination : A61K 39/0001

Preparations containing fungal antigens for vaccination : A61K 39/0002

Preparations containing invertebrate antigens for vaccination : A61K 39/0003

Preparations containing vertebrate antigens for vaccination :

from A61K 39/0005 to A61K 39/0012

A61K 39/0006 :contraceptive vaccins, vaccins against sex hormones

A61K 39/0007 : peparations containing nervous system antigens or prions

A61K 39/0008 : preparations containing antigens related to auto-immune diseases and preparations to induce self-tolerance

A61K 39/001 : preparations to induce tolerance to non-self, e.g. prior to transplantation

A61K 39/0011 : preparations containing cancer antigens

A61K 39/0012 : preparations containing lipid or lipoprotein antigens

Preparations containing protozoa antigens : from A61K 39/002 - A61K 39/018 according to the origin of the antigen

A61K 39/005 : preparations containing Trypanosoma antigens

A61K 39/008 : preparations containing Leishmania antigens

A61K 39/012 : preparations containing Coccidia antigens

A61K 39/015 : preparations containing Hemosporidia antigens e.g. Plasmodium antigens

A61K 39/018 : preparations containing Babesia antigens e.g. Theileria antigens

Preparations containing bacterial antigens : from A61K 39/02 to A61K 39/118 according to the origin of the antigen

A61K 39/0208 : preparations containing antigens from specific bacteria, which cannot be classified in A61K 39/0216 - A61K 39/118

A61K 39/0216 : preparations containing antigens from Bacteriodetes, e.g. Bacteroides, Ornithobacter, Porphyromonas

A61K 39/0225 : preparations containing antigens from Spirochetes, e.g. Treponema, Leptospira, Borrelia

A61K 39/0233 : preparations containing antigens from Rickettsiales, e.g. Anaplasma

A61K 39/0241 : preparations containing antigens from Mollicutes, e.g. Mycoplasma, Erysipelothrix

A61K 39/025 : preparations containing antigens from Enterobacteriales, e.g. Enterobacter, Yersinia

A61K 39/0258 : preparations containing antigens from Escherichia

A61K 39/0266 : preparations containing antigens from Klebsiella

A61K 39/0275 : preparations containing antigens from Salmonella

A61K 39/0283 : preparations containing antigens from Shigella

A61K 39/04 : preparations containing antigens from Mycobacterium, e.g. Mycobacterium tuberculosis

A61K 39/05 : preparations containing antigens from Actinobacteria (e.g. Actinomyces, Streptomyces, Nocardia, Bifidobacterium,Gardnerella), Corynebacteria, Propionibacteria. Preparations containing antigens from Mycobacterium are classified in A61K 39/04

A61K 39/07 : preparations containing antigens from Bacillus

A61K 39/08 : preparations containing antigens from Clostridium, e.g. Clostridium tetanus

A61K 39/85 : preparations containing antigens from Staphylococcus

A61K 39/09 : preparations containing antigens from Lactobacillales, e.g. Aerococcus, Enterococcus, Lactobacillus, Lactococcus

A61K 39/092 : preparations containing antigens from Streptococcus

A61K 39/095 : preparations containing antigens from Neisseria

A61K 39/10 : not used

A61K 39/10A : preparations containing antigens from Brucella

A61K 39/10B : preparations containing antigens from Bordetella, e.g. Bordetella pertussis

A61K 39/102 : preparations containing antigens from Pasteurellales, e.g. Actinobacillus, Pasteurella, Haemophilus

A61K 39/104 : preparations containing antigens from Pseudomonadales, e.g. Pseudomonas

A61K 39/1045 : preparations containing antigens from Moraxella

A61K 39/106 : not used

A61K 39/10A : preparations containing antigens from Delta proteobacteriales, e.g. Lawsonia, from Epsilon proteobacteriales, e.g. campylobacter, Helicobacter

A61K 39/114 : preparations containing antigens from Fusobacterium

A61K 39/116 : preparations containing antigens from more than one bacteria; preparation containing a mixture of bacterial and viral antigens are classified in A61K 39/295

A61K 39/118 : preparations containing antigens from Chlamydiaceae, e.g. Chlamydia trachomatis or Chlamydia psittaci

Preparations containing viral antigens : A61K 39/12 AND C12N 7/00 in combination with an Indexing Code in the C12N 2700/00-M12N 795/00SERIES according to the origin of the viral antigen.

The specific Indexing Codes have the format C12N7xx/xxxx34

The first part (xxx/xxxx)of the code indicates the specific virus from which the antigen has been derived. The first four digits after the "/" represent the taxonomic location of the virus and the last place rule applies.

C12N 2710/00 double stranded DNA virus

C12N 2720/00 double stranded RNA virus

C12N 2730/00 reverse transcribing DNA virus

C12N 2740/00 reverse transcribing RNA virus

C12N 2750/00 single stranded DNA virus

C12N 2760/00 single stranded RNA virus negative-sense

C12N 2770/00 single stranded RNA virus positive-sense

C12N 2780/00 viroids and subviral agents

C12N 2790/00 naked RNA Virus

C12N 2792/00 archaeabacteria virus

C12N 2795/00 bacteriophage

The second part of the Indexing Code(34) indicates the use, namely that the virus or viral component is used as vaccine

Preparations containing multiple antigens of which at least one is a viral antigen : A61K 39/295 AND C12N 7/00 in combination with an Indexing Code in the C12N 2700/00-C12N 2795/00(7xx/xxxx34) series according to the origin of the viral antigen(s).

Preparations containing allergens for vaccination : from A61K 39/35 to A61K 39/36

A61K 39/36 : preparations containing allergens

A61K 39/36 : preparations containing allergens from pollen

Preparations containing antigens from snakes for vaccination : A61K 39/38

Preparations characterized by haptens or antigens bound to a carrier : A61K 39/385

Documents disclosing a new carrier will be classified within A61K 39/385. In

addition, specific examples will also be classified according to the nature of the antigen with the addition of an Indexing Code from the A61K 2039/60 series to characterise the carrier.

Documents relating to compositions containing specific antigens bound to a carrier are preferably classified according to the nature of the antigen in groups A61K 39/00 to A61K 39/38 with the addition of an Indexing Code from the A61K 2039/60 series to characterise the carrier and possibly also an Indexing Code from the A61K 2039/62 series to characterise the link between the carrier and the antigen and an Indexing Code from the A61K 2039/64 series to characterise the architecture of the carrier-antigen complex.

Preparations characterized by the immunostimulating additive or adjuvant : A61K 39/39

Documents disclosing a new adjuvant will be classified within A61K 39/39 and the specific examples will also be classified according to the nature of the antigen with the addition of an Indexing Code from the A61K 2039/555 series to characterise the adjuvant.

Documents relating to compositions containing specific antigens in the presence of an immunostimulating additive/adjuvant are classified according to the nature of the antigen in groups A61K 39/00 to A61K 39/38 with the addition of an Indexing Code from the A61K 2039/555 series to characterise the adjuvant.

Preparations containing DNA encoding an antigen for vaccination

Documents disclosing a DNA vaccine will be classified according to the nature of the antigen in groups A61K 39/00 to A61K 39/38 with the addition of the Indexing Code A61K 2039/53.

Preparations containing an antigen for vaccination in combination with another/other active ingredient(s) are classified in the corresponding A61K 39/00 class with the addition of the Indexing Code A61K 2300/00

The following relevant and sufficiently disclosed aspects of the vaccines are further classified using Indexing Codes :

vaccines comprising whole cells, animal cells, bacterial cells or viruses : A61K 2039/51 and subgroups thereof

vaccines characterised by the route of administration : A61K 2039/54 and subgroups thereof

vaccines characterised by the dose, timing or administration schedule : A61K 2039/545

vaccines characterised by the host/recipient : A61K 2039/55 and subgroup A61K 2039/552

vaccines characterised by a specific combination antigen/adjuvant : A61K 2039/555 and subgroups thereof for characterising the adjuvant

vaccines characterised by the type of immune response : A61K 2039/57

vaccines characterised by the carrier linked to the antigen : A61K 2039/60 and subgroups thereof

vaccines characterised by the link between antigen and carrier : A61K 2039/62 and subgroups thereof

vaccines characterised by the architecture of the carrier-antigen complex : A61K 2039/64 and subgroup A61K 2039/645

A61K 41/00

Medicinal preparations obtained by treating materials with wave energy or particle radiation; [N: Therapies using these preparations]

Definition statement

This subclass/group covers:

- preparations which are obtained by using homeopathic procedures, procedures for dynamisation, or esoteric preparations: A61K 41/0004

- preparations which are obtained by treating materials with wave energy, e.g. U.V. light, or particle radiation, prior to administration, for decontamination: A61K 41/0009

- preparations for use in therapy during which wave energy or particle radiation is administered, in order to "activate" the agent, e.g. photodynamic therapy, or for releasing a pharmacologically active agent, e.g. thermosensitive liposomes, photolabile linkers: A61K 41/0023 - A61K 41/0095.

-Medicinal preparations guided in vivo through the body by a magnetic field: A61K 41/00.

Attention shall be drawn to the number of dots defining a hierarchy.

A61K 41/0004 (1 dot): homeopathy; vitalisation; resonance; dynamisation; esoteric applications; oxygenation of blood.
A61K 41/0009 (1 dot): inactivation or decontamination of a medicinal preparation prior to administration to the animal/human, e.g. : inactivation of viruses or bacteria for vaccines, sterilisation by electromagnetic radiation (see A61K 41/0019 for the specific method; A61L 2/0029 if the

invention lies in the method of sterilization of the medicinal preparation rather than the sterilized medicinal preparation.
A61K 41/0014 (2 dots): by ultrasonic waves.
A61K 41/0019 (2 dots): by UV, IR, Rx or gamma rays.
A61K 41/0023 (1 dot): agression treatment or altering: - of a medicinal preparation prior to administration to the human/animal (e.g. altering a binding specificity of a monoclonal antibody used in a medicinal agent with an oxidizing agent or an electric potential); - of a tissue/organ prior to graft (e.g. destroying immunodominant epitopes); - the permeability of cell membranes or biological barriers in vivo (e.g. by ultrasound) prior to the administration of a medicinal preparation to the animal/human; - for inducing the production of stress response proteins or heat shock proteins in order to reduce subsequent response to injuries.
A61K 41/0028 (1 dot): disruption (e.g. by heat or ultrasounds), sonophysical or sonochemical activation; e.g. : thermosensitive or heat-sensitive liposomes, disruption of calculi with a medicinal preparation and ultrasounds.
A61K 41/0033 (2 dots): sonodynamic cancer therapy with sonochemically active agents/sonosensitizers, having their cytotoxic effects enhanced through application of ultrasounds (ultrasound therapy per se is classified in A61N 7/00).
A61K 41/0038 (1 dot): radiosensitizing, i.e. administration of

pharmaceutical agents that enhance the effect of radiotherapy (radiotherapy per se is classified in A61N 5/10).
A61K 41/0042 (1 dot): photocleavage of drugs in vivo (e.g. cleavage of photolabile linkers in vivo by UV radiation for releasing the pharmacologically-active agent from the administered agent); photothrombosis or photoocclusion.
A61K 41/0047 (1 dot): sonopheresis (i.e. ultrasonically-enhanced transdermal delivery), electroporation of a pharmacologically active agent (NB: to be classified in A61K 9/0009 when it is in relation to the galenic form)
A61K 41/0052 (1 dot): thermotherapy; hyperthermia; magnetic induction; induction heating therapy (NB: simple magnetic guidance of drugs in vivo is to be classified in A61K 41/00, and in A61K 47/4893).
A61K 41/0057 (1 dot): photodynamic therapy with a photosensitizer (i.e. agent able to produce reactive oxygen species upon exposure to light (e.g. UV or visible light) radiation; photocleavage of nucleic acids with an agent.
A61K 41/0061 (2 dots): 5-aminolevulinic acid-based PDT (5-ALA-PDT involving porphyrins or precursors of protoporphyrins generated in vivo from 5-ALA).
A61K 41/0066 (2 dots): psoralene-activated UVA photochemotherapy (PUVA-therapy), e.g. for treatment of psoriasis or eczema, extracorporeal photopheresis with psoralens (fucocoumarins).

A61K 41/0071 (2 dots): PDT with porphyrins having 20 carbon atoms and 4 nitrogen atoms forming the ring system (i.e. based on the non-expanded tetrapyrrolic ring system, e.g. : bacteriochlorin, chlorin-e6, or phthalocyanines).
A61K 41/0076 (2 dots): PDT with expanded (i.e. having more than 20 carbon atoms and/or 4 nitrogen atoms forming the ring system) (metallo)porphyrins, e.g. texaphyrins, sapphyrins, hexaphyrins, pentaphyrins, porphocyanines.
A61K 41/008 (2 dots): two-photon or multi-photon PDT, e.g. with two-photon upconverting dyes or photosensitizers.
A61K 41/0085 (1 dot): mossbauer effect therapy based on mossbauer effect of a material (i.e. re-emission of gamma rays after absorption of gamma rays by the material); selective radiation therapy (i.e. involving re-emission of ionizing radiation upon exposure to a first ionizing radiation).
A61K 41/009 (1 dot): neutron capture therapy, e.g. using uranium or non-boron material.
A61K 41/0095 (2 dots): boron neutron capture therapy (BNCT), e.g. using boronated porphyrins.

Relationship between large subject matter areas

Galenical aspects of pharmaceutical compositions are also classified by giving a combination of classes in A61K 9/00 and A61K 47/00 to and including A61K 47/48.

The active ingredients in pharmaceutical compositions are classified in A61K 31/00 - A61K 48/00.

Preparations for testing in vivo using radioactive substances, or substances for use in therapy labeled with a radioactive isotope, are classified in A61K 51/00.

Preparations for testing in vivo, or for use in an in vivo diagnostic imaging method (e.g., by luminescence, fluorescence, X-ray imaging, ultrasound imaging, echography, MRI) are classified in A61K 49/00 and its subgroups

References relevant to classification in this group

This subclass/group does not cover:

Polymerisation induced by radiation	C08
therapy by ultrasound	A61N 7/00
radiotherapy per se	A61N 5/10

Special rules of classification within this group

A61K 31/59 takes precedence.

In A61K 41/0009 and its subgroups, pharmaceutical compositions are classified that are decontaminated prior to use, by applying radiation, or of which one of the constituents is thus decontaminated.

Photosensitizers used in photodynamic therapy (the photosensitizer being considered as the therapeutically active part) and modified by another compound (e.g. polymer or an antibody) to be classified in A61K 41/0071 or A61K 41/0076 and according to the A61K 47/48 subclass of the modifying agent.

A61K 45/00

Medicinal preparations containing active ingredients not provided for in groups A61K31/00 to A61K41/00

A61K 45/06

Mixtures of active ingredients without chemical characterisation, e.g. antiphlogistics and cardiaca

Informative references

Attention is drawn to the following places, which may be of interest for search:

Pharmaceuticals	A61K

Galenic aspects	A61K 9/00
Organic active ingredients	A61K 31/00
Inorganic active ingredients	A61K 33/00
Active ingredients of undetermined constitution (i.e. natural products)	A61K 35/00
Active ingredients from algae, lichens, fungi or plants	A61K 36/00
Peptides, proteins	A61K 38/00
Antigens or antibodies, vaccines, adjuvants	A61K 39/00
Homeopathy, thermotherapy, photodynamic therapy, photoactivable drugs	A61K 41/00
Characterized by non-active ingredients e.g. carriers, inert additives, excipients ...	A61K 47/00
Conjugates; targeted drugs	A61K 47/48
Gene therapy	A61K 48/00
Radioactive substances	A61K 51/00
Diagnosis	
Testing in vivo, e.g. screening, contrast agents, ultrasound	A61K 49/00
Radioactive substances	A61K 51/00
In vitro diagnosis	G01N
Biomaterials	A61L

Disinfecting or sterilising contact lenses	A61L 12/00
For bandages, dressings or absorbent pads	A61L 15/00
Surgical sutures	A61L 17/00
Surgical adhesives or cements	A61L 24/00
For wound dressings, bandages, also liquid, gel, powder	A61L 26/00
For (coating of) grafts, prostheses, also with active	A61L 27/00
For other surgical articles, e.g. stents, embolization	A61L 31/00
Medicine/pharmacy - mechanical aspects	A61F A61J A61M A61N
Stents	A61F 2/06P
Contraceptive devices	A61F 6/00
Ophthalmic implants	A61F 9/0017
Bandages, dressings, absorbent pads	A61F 13/00
Tampons (also medicated)	A61F 13/20
Making transdermal patches	A61F 2013/0296
Electrotherapy	A61N 1/00
Iontophoresis	A61N 1/30
Magnetotherapy	A61N 2/00
Other medical	
Dentistry	A61K 6/00

Sterilization methods	A61L 2/00
Medical informatics	G06F 19/00M
Contact lenses	G02C 7/04
Undifferentiated human, animal or plant cells, e.g. cell lines; Tissues; Cultivation or maintenance thereof; Culture media therefore	C12N 5/00
Other human necessities	
Cosmetics	A61K 8/00
Biocides, pest repellants or attractants	A01N
Animal feeding-stuffs	A23K 1/00
Food or functional food (neutraceuticals)	A23L
General chemistry	
Quaternary ammonium compounds	C07C 211/62
Phosphatides	C07F 9/10
Dendrimers	C08G 83/002
Macromolecular gels	C08J 3/075
Detergent compositions	C11D

Special rules of classification within this subgroup

1) No distinction is made between Invention and Additional information.

2) Therapeutic use: the A61K 45/06 classification symbol should mainly be reserved for mixtures containing at least one active ingredient without

chemical characterisation.

It is also used in the case that there are too many exemplified combinations.

A61K 47/00

Medicinal preparations characterised by the non-active ingredients used, e.g. carriers, inert additives

Definition statement

This subclass/group covers:
A61K 47/00 - A61K 47/46

- Pharmaceutical compositions characterised by the excipients, i.e. the non-active ingredients.

- New excipients per se

A61K 47/48

- Conjugates, i.e. compounds comprising a non-active ingredient chemically bound to the pharmaceutically active ingredient

Relationship between large subject matter areas

Galenical aspects of pharmaceutical compositions are classified in A61K 9/00 and in A61K 47/00. The last place rule does not apply between A61K9 and A61K 47/00 - A61K 47/46EXCIPIENTS can be classified in A61K 47/00- A61K 47/46 or in A61K 9/00, depending on the situation: A61K 47/00 is used to classify excipients in compositions for which A61K 9/00 does not provide information on excipients. No A61K 47/00 is given if A61K 9/00 already provides information on excipients (e.g. tablet excipients are only classified in A61K 9/20...). New excipients per se are (in addition) classified in A61K 47/00.

Conjugates, i.e. compounds comprising a non-active ingredient bound to the active ingredient, are classified in A61K 47/48. Pharmaceutical compositions comprising conjugates may in addition be classified in A61K 9/00.

The active ingredients in pharmaceutical compositions are classified in A61K 31/00 - A61K 45/00, or A61K 48/00 - A61K 51/00.

References relevant to classification in this group

This subclass/group does not cover:

Nuclear magnetic resonance contrast preparations or magnetic resonance imaging contrast preparations	A61K 49/18

Preparations containing radioactive substances	A61K 51/12

Special rules of classification within this subclass

Classified are concrete, well-defined pharmaceutical compositions disclosed in the examples. Also classified are independent claims defining galenical aspects of a pharmaceutical composition or a medical use.

In principle all examples are classified, also 'standard' examples in documents describing e.g. a new medical use.

However, systematically classifying all excipients in the examples is not necessary, and often undesirable. In any case classified are excipients which are described as being important for the invention, or which the reader can identify as having an important function, e.g. for sustained release. For 'standard' compositions the examiner should choose one or a few excipients to classify.

Animal tests are not classified, unless it is absolutely clear that they represent the intended mode of administration.

The description and dependent claims are not classified. However, if the document as a whole focuses on one clearly preferred embodiment, this embodiment may be classified, even in the absence of relevant examples or independent claims.

In general, information relating to the invention is classified using EC-classes, while additional information is classified using Indexing Code. This is largely up to the discretion of the examiner. Please note however the following special situations:

- Normally only final compositions are classified, not intermediates. However, it may be useful to classify intermediates with Indexing Code (e.g. a tablet comprising microcapsules; a multicoated microparticle). If the intermediates are claimed separately, they must be classified.

- If an ECLA group refers out to another group, an Indexing Code may still be given for the first group (e.g. oral mucoadhesive film).

A61K 47/48

the non-active ingredient being chemically bound to the active ingredient, e.g. polymer drug conjugates

Definition statement

This subclass/group covers:

This subclass/group covers:

Medicinal preparations containing conjugates. A conjugate is meant to define a pharmacologically/therapeutically-active agent or drug chemically bound (by covalent bonds of by complexation) to a modifying agent. The classification in this subgroup is based on this modifying agent. The "pharmacologically/therapeutically-active agent" covers a molecule used as the drug and linked to the modifying agent, or a molecule used as the drug and encapsulated/linked to a special physical/galenical form. The modifying agent is e.g. used to: -modify the physico-chemical properties of the pharmacologically/therapeutically-active agent, e.g. to increase its solubility in bodily fluids, -modify the pharmacokinetic properties, e.g. to increase the time of residence in the blood, -modify the pharmacological activity (in case of e.g. codrugs or mutual drugs), or-target specific sites in the body for delivery, i.e. receptors, cells, tissues or organs.

Attention shall be drawn to the number of dots defining a hierarchy.

A61K 47/48007 (2 dots): the pharmacologically/therapeutically-active agent is covalently bound or complexed to a modifying agent; classification is made according to the nature of this modifying agent.
A61K 47/48015 (3 dots): the modifying agent is an inorganic compound; e.g. inorganic ion that is chemically complexed (classic ion pairs of medicinal agents are not classified in A61K 47/48, but in the corresponding A61K31 subclass) with the pharmacologically/therapeutically-active

agent.
A61K 47/48023 (3 dots): the modifying agent is an organic compound.
A61K 47/4803 (4 dots): the modifying agent is an organic ion that forms an ion pair complex with the pharmacologically/therapeutically-active agent.
A61K 47/48038 (4 dots): the modifying agent is a carboxylic acid, e.g. a fatty acid or an amino acid. When covalently linked to the pharmacologically/therapeutically-active agent, it can be via its carboxylic function or via another chemical function leaving the carboxylic function free.
A61K 47/48046 (4 dots): the modifying agent is: - a lipid (e.g. triglycerides; not a fatty acid (classified in A61K 47/48038) or cholesterol (classified in A61K 47/48123)); or - a polyamine (e.g. spermine or spermidine).
A61K 47/48053 (5 dots): the modifying agent is a phospholipid.
A61K 47/48061 (4 dots): the modifying agent is a heterocyclic compound.
A61K 47/48069 (5 dots): the modifying agent is a heterocyclic compound which is a porphyrine or a porphyrine with an expanded ring system (e.g. texaphyrine). Porphyrins used as photosensitizers in photodynamic therapy: see A61K 41/0071 or A61K 41/0076; Porphyrins used as photosensitizers in photodynamic therapy (the photosensitizer being considered as the therapeutically active part) and

modified by another compound (e.g. polymer or an antibody) to be classified in A61K 41/0071 or A61K 41/0076 and according to the A61K 47/48 subclass of the modifying agent; Porphyrins used as fluorescent diagnostic optical agents administered in vivo to be classified in A61K 49/0036.
A61K 47/48076 (4 dots): the modifying agent is a chelate (i.e. single central atom/ion sequestered by a polydentate ligand, e.g. Gd-DOTA or Zinc-amino acid chelate) or a chelate-forming compound (i.e. chelating group, e.g. DOTA or ethylenediamine) that is covalently/complexed to the pharmacologically/therapeutically-active agent. Paramagnetic chelates used in MRI and not linked to by further compound (e.g. polymer, peptide, protein, antibody, small molecules like sugars) are only classified in A61K 49/101 and subclasses. Paramagnetic chelates used in MRI and conjugated to another compound (e.g. a polymer, a peptide, a protein, an antibody, a small molecule like a sugar) are classified in A61K49 (and not A61K 47/48169, if said other compound is not used as therapeutic agent), according to the nature of the modifying agent, and completed by A61K 49/085. Radiolabelled chelates are classified in A61K 51/0474 and its subgroups, and in A61K 51/0497, A61K 51/065, A61K 51/088 or A61K 51/1093 if the chelate is linked to a further molecule (organic compound, polymer, peptide/protein/polyamino acid, antibody.
A61K 47/48084 (4 dots): the modifying agent is a phosphate or phosphonate not being a phospholipid, e.g. bone-seeking (NB: nucleic acid carriers to be classified in A61K 47/48092).

A61K 47/48092 (4 dots): the modifying agent linked to the pharmacologically/therapeutically-active agent is a sugar, nucleoside, nucleotide, nucleic acid (coding, non-coding, nucleic acid which is therapeutically-active or not, e.g. : oligonucleotides, DNA, RNA, siRNA, nucleic acid aptamers).
A61K 47/481 (4 dots): the modifying agent is also a pharmacologically/therapeutically-active agent, i.e. the entire conjugate is a codrug, i.e. a dimer, oligomer or polymer of pharmacologically/therapeutically-active compounds (not being a sugar, nucleoside, nucleotide, nucleic acid (classified in A61K 47/48092); e.g. being a polymer of aspirin (not classified in A6K47/48K6)).
A61K 47/48107 (5 dots): one of the codrug's component is a vitamin, e.g. niacinamide (vitamin B3), cobalamin (vitamin B12), folate, vitamin A, retinoic acid.
A61K 47/48115 (5 dots): one of the codrug's components is an antibiotic
A61K 47/48123 (4 dots): the modifying agent is a steroid (cholesterol just classified here and not in A61K 47/48046), plant sterol, glycyrrhetic acid (enoxolone), bile acids. Codrugs of pharmacologically active/therapeutically-active steroids are classified in the present subclass and also in A61K 47/48H4N.
A61K 47/4813 (4 dots): pretargeting systems involving an organic compound (not being a peptide/protein/antibody) for targeting specific cells. The concept of "pre-targeting" covers the administration of the modifying agent

(which is an agent able to target specific cells in the body), and of the pharmacologically/therapeutically-active agent (drug D) in several steps, their "binding" occurring at the in vivo targeted site. It involves administration in at least two steps, for example: (i) a conjugate T-A corresponding to a targeting agent able to target specific cells or receptors in the body (T) linked to a compound A, and (ii) a conjugate D-M corresponding to the drug linked to a modifying agent M able to target the compound A. The sequence involves the administration of T-A and then D-M. Between step (i) and step (ii), a further compound able to bind to A and M may also be administered (e.g. during a clearing step). Classification is made according to the nature of T in the subclasses of A61K 47/4813, A61K 47/48346 and A61K 47/48723. In A61K 47/4813 and its subclasses, T is an organic compound , not being a peptide/protein/antibody. Classification is also made according to the nature of the organic compound T in the appropriate A61K 47/48023 subclass. If T is a peptide/protein/antibody, classification is made in the corresponding A61K 47/48346 or A61K 47/48723 pretargeting class.
A61K 47/48138 (5 dots): ECTA (enzyme catalyzed therapeutic agent). An enzyme is used as group A (see definition in A61K 47/4813) and is first targeted to specific cells via administration of the conjugate T-A. Then, the conjugate M-D which is a substrate for A is administered. The enzyme A is able to cleave the conjugate M-D (which can be e.g. a prodrug). The drug D is thus released through enzymatic cleavage at particular targeted cells.
A61K 47/48HG4S8 (5 dots): M and A (see definition in A61K 47/4813) form

a pair of biotin and (strept)avidin (or derivatives of biotin and (strept)avidin).
A61K 47/48153 (4 dots): the modifying agent is chemiluminescent acceptor. A chemical reaction induces the cleavage of the pharmacologically/therapeutically-active agent from the carrier while at the same time producing light . If the conjugate if cleaved through activation by light in vivo in order to release the drug, then the classification symbol is A61K 41/0042. Dyes/luminescent agents for optical diagnostic imaging: A61K 49/001, for photodynamic therapy: A61K 41/0057.
A61K 47/48161 (4 dots): redox delivery system, e.g. dihydropyridine pyridinium salt redox systems.
A61K 47/48169 (2 dots): the modifying agent is an organic macromolecular compound, i.e. an oligomeric, polymeric, dendrimeric molecule (not being a peptide, protein, polyamino acid (see A61K 47/48238 and subclasses) or an antibody (see A61K 47/48369 and subclasses)). In case of block copolymers, the different (large) blocks are classified in the appropriate A61K 47/48169 or A61K 47/48238 subclasses.
A61K 47/48176 (3 dots): the organic macromolecular compound (see A61K 47/48169 for definition) has been obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. poly(meth)acrylate, polyacrylamide, polystyrene, polyvinylpyrrolidone, polyvinylalcohol.
A61K 47/48184 (4 dots): the macromolecular compound obtained

by reactions only involving carbon-to-carbon unsaturated bonds is an ion exchange resin, e.g. polystyrene sulfonic acid resin.
A61K 47/48192 (3 dots): the organic macromolecular compound (see A61K 47/48169 for definition) has been obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. polylactic acid, PLGA (polylactide-co-glycolide), polyureas, polyurethanes.
A61K 47/482 (4 dots): the macromolecule is/contains a polyester, e.g. PLGA (polylactide-co-glycolide)
A61K 47/48207 (4 dots): the macromolecule is/contains a polyamide (e.g. nylon; not being a polyamino acid, see A61K 47/48238)
A61K 47/48215 (4 dots): [N: the organic macromolecular compound (see A61K 47/48169 for definition) is a polyoxyalkylene oligomer, polymer, dendrimer, e.g. PEG, PPG, PEO, polyglycerol.]
A61K 47/48215 (4 dots): the organic macromolecular compound (see A61K 47/48169 for definition) is a polyoxyalkylene oligomer, polymer, dendrimer, e.g. PEG, PPG, PEO, polyglycerol.
A61K 47/48223 (4 dots): the macromolecule contains phosphorus in the main chain, e.g. poly(phosphazene)
A61K 47/4823 (3 dots): the organic macromolecular compound (see A61K 47/48169 for definition) is a polysaccharide or a derivative, e.g. starch, chitosan, chitin, cellulose,

pectin, cyclodextrin (with the pharmacologically active agent being covalently linked to the external surface of the ring structure; if cyclodextrin is used to complex the drug, then the appropriate classification is A61K 47/48969), a bacterial polysaccharide/oligosaccharide antigen, a glycosaminoglycan (NB: proteoglycans as modifying agents attached to the pharmacologically/therapeutically active agent are classified in the appropriate A61K 47/48238 subclass).
A61K 47/48238 (2 dots): the modifying agent is a protein, peptide, polyamino acid (antibodies or immunoglobulins are classified in A61K 47/48369 subclasses). Special physical/galenic forms modified by covalent attachment/complexation of a protein/peptide/polyamino acid, are given the A61K 47/48238 class in addition to their corresponding A61K 47/48769 subclass, e.g. a liposome modified on its surface by a peptide is classified in A61K 47/48815 and A61K 47/48238, a PLGA nanoparticle modified on its surface by a peptide is classified in A61K 47/48915 and in A61K 47/48238. Peptidic linkers used to connect a drug and a modifying agent are classified in A61K 47/48338, the modifying agent is also classified if it is defined.
A61K 47/48246 (3 dots): drug-protein/peptide/polyamino acid conjugates, i.e. the modifying agent is a protein, peptide, polyamino acid which is linked/complexed to a molecule that is the pharmacologically/therapeutically-active agent. The connection of the drug to the protein/peptide/polyamino acid can be by a direct covalent linkage or through a linker (peptidic linker are classified in A61K 47/48338).

Fusion/chimeric proteins genetically produced (e.g. by recombinant DNA technology) are classified in C07K 2319/00 and subgroups (not in A61K 47/48246 and subgroups). A61K 47/48246 and its subgroups only cover the conjugates wherein a peptide/protein being the pharmacologically/therapeutically-active agent has been linked to another peptide/protein being the modifying agent via chemical methods. In that latter example of a chemically-produced peptide/protein-peptide/protein conjugate, what is classified in A61K 47/48246 or in one of its subgroups is the peptide/protein used as modifying agent.
A61K 47/48253 (4 dots): the protein/peptide/polyamino acid in the drug conjugate is a branched, dendritic or hypercomb peptide.
A61K 47/48261 (4 dots): the protein/peptide in the drug conjugate is a toxin or a lectin, e.g. clostridial toxins or Pseudomonas exotoxin.
A61K 47/48269 (4 dots): the protein/peptide in the drug-conjugate is a cytokine, e.g. IL2, chemokine, growth factors (but not the ligands thereof), interferons (but not being the drug of the drug-conjugate).
A61K 47/48276 (4 dots): the protein/peptide in the drug conjugate is a receptor as such (therefore not a peptide targeting a receptor), e.g. CD4; a cell surface antigen (therefore not a peptide ligand targeting the antigen); a cell surface determinant (i.e. a part of the surface of a cell).
A61K 47/48284 (4 dots): the protein/peptide in the drug conjugate is an albumin (e.g. HSA, BSA, ovalbumin) or a Keyhole Limpet

Hemocyanin (KHL).
A61K 47/48292 (4 dots): the protein/peptide in the drug conjugate is a connective tissue peptide, e.g. collagen, fibronectin, gelatin.
A61K 47/483 (4 dots): the protein/peptide in the drug conjugate is a transferrin, e.g. a lactoferrin or ovotransferrin.
A61K 47/48307 (4 dots): the protein/peptide in the drug conjugate is a haemoglobin.
A61K 47/48315 (4 dots): the protein/peptide in the drug conjugate is a polycationic or polyanionic oligopeptide/polypeptide/polyamino acid, e.g. polylysine, polyarginine, polyglutamic acid, peptide TAT.
A61K 47/4833 (4 dots): the entire peptide/protein drug conjugate elicits an immune response, e.g. conjugate vaccines, haptens (e.g. conjugate of morphine/nicotine and KLH inducing an immune response is classified in A61K 47/4833 and A61K 47/48284).
A61K 47/48338 (3 dots): peptidic linker, binder, spacer, e.g. peptidic enzymo-labile linker.
A61K 47/48346 (3 dots): pretargeting systems involving a peptide/protein (not an antibody: see A61K 47/48723) for targeting specific cells. The concept of "pre-targeting" covers the administration of the modifying agent (which is an agent able to target specific cells in the body), and of the pharmacologically/therapeutically-active agent (drug D) in several steps, their "binding" occurring at the in vivo targeted site. It involves administration in at least two steps, for example: (i) a conjugate T-A

corresponding to a targeting agent able to target specific cells or receptors in the body (T) linked to a compound A, and (ii) a conjugate D-M corresponding to the drug linked to a modifying agent M able to target the compound A. The sequence involves the administration of T-A and then D-M. Between step (i) and step (ii), a further compound able to bind to A and M may also be administered (e.g. during a clearing step). Classification is made according to the nature of T in the subclasses of A61K 47/4813, A61K 47/48346 and A61K 47/48723. In A61K 47/48346 and its subclasses, T is a peptide/protein, not being a antibody.
A61K 47/48353 (4 dots): pretargeting system, clearing therapy or rescue therapy, involving biotin-(strept)avidin systems.In this subclass, M and A (see definition in A61K 47/48346) form a pair of biotin and (strept)avidin (or derivatives of biotin and (strept)avidin).
A61K 47/48361 (4 dots): Enzyme prodrug therapy, e.g. gene directed enzyme drug therapy (GDEPT), VDEPT.An enzyme is used as group A (see definition in A61K 47/48346) and is first targeted to specific cells via administration of the conjugate T-A. Then, the conjugate M-D which is a substrate for A is administered. The enzyme A is able to cleave the conjugate M-D (which can be e.g. a prodrug). The drug D is thus released through enzymatic cleavage at particular targeted cells.
A61K 47/48369 (2 dots): the modifying part is an antibody, an immunoglobulin, or a fragment thereof (e.g. Fc-fragment).
A61K 47/48376 (3 dots): drug-antibody/immunoglobulin

conjugates defined by the pharmacologically/therapeutically-active agent. The modifying part is an antibody/immunoglobulin bearing antigen-binding sites.
A61K 47/48384 (4 dots): drug conjugated to an antibody/immunoglobulin, e.g. cisplatin-antibody conjugates. The modifying part is an antibody/immunoglobulin bearing at least one antigen-binding site.In A61K 47/48384 and its subclasses, classification is made according to the nature of the drug (pharmacologically/therapeutically-active agent in the antibody conjugate). If the nature of the antibody in a specific conjugate is known, it is indicated with the corresponding A61K 47/48507 subclass, in addition to the subclass A61K 47/48384 characterizing the drug. If the conjugate comprises also a polymer or a polyamino acid, then the class A61K 47/48692 or A61K 47/487 is also given.
A61K 47/48392 (5 dots): the drug is a vinca alkaloid.
A61K 47/484 (5 dots): the drug/compound is a sugar, nucleoside, nucleotide, nucleic acid, e.g. RNA antisense.
A61K 47/48407 (6 dots): the drug is an antibiotic, e.g. one of the antitumor antibiotics: anthracyclins, adriamycin, doxorubicin, daunomycin.
A61K 47/48415 (5 dots): the drug is a protein or peptide, e.g. transferrin or bleomycin.
A61K 47/48423 (6 dots): the drug is a peptidic cytokine, e.g. an interleukin or interferon.

A61K 47/4843 (6 dots): the drug is an enzyme.
A61K 47/48438 (6 dots): the drug is a toxin.
A61K 47/48446 (7 dots): the drug is a plant toxin.
A61K 47/48453 (8 dots): the drug is a plant heterodimeric toxin; chains A or B containing toxins, e.g. abrin, modeccin.
A61K 47/48461 (9 dots): the drug is ricin (double chain).
A61K 47/48469 (8 dots): the drug is a ribosomal inhibitory protein, (RIP-i or RIP-II), e.g. Pap, gelonin, dianthin.
A61K 47/48476 (9 dots): the drug is ricin A.
A61K 47/48484 (7 dots): the drug is a bacterial toxin, e.g. diphteria toxin, Pseudomonas exotoxin A.
A61K 47/48492 (7 dots): the drug is a fungal toxin, e.g. alpha sarcine, mitogillin, zinniol, restrictocin.
A61K 47/485 (7 dots): the drug is a viral toxin .
A61K 47/48507 (3 dots): the modifying agent is a well defined antibody/immunoglobulin bearing at least one antigen-binding site. According to the nature of the antibody, the appropriate A61K 47/48515 subclass is given. If the pharmacologically/therapeutically-agent in the antibody conjugate is known, the appropriate A61K 47/48384 subclass is also given.

A61K 47/48515 (4 dots): not used, see subgroups
A61K 47/48523 (5 dots): the antibody is against material from viruses.
A61K 47/4853 (6 dots): the antibody is targeting a RNA virus.
A61K 47/48538 (5 dots): the antibody is targeting a material from animals or humans.
A61K 47/48546 (5 dots): the antibody is targeting a cytokine (e.g. growth factors, VEGF, TNF), a lymphokine or an interferon.
A61K 47/48553 (5 dots): the antibody is targeting an hormone, or an hormone-releasing or -inhibiting factor.
A61K 47/48561 (5 dots): the antibody is targeting a receptor, a cell surface antigen, a cell surface determinant.
A61K 47/48569 (5 dots): the antibody is targeting a determinant of a tumour cell.
A61K 47/48576 (6 dots): the tumour determinant is carcino-embryonic antigen.
A61K 47/48584 (6 dots): the tumour determinant is from breast cancer cell.
A61K 47/48592 (6 dots): the tumour determinant is from lung cancer cell.
A61K 47/486(6 dots): the tumour determinant is from liver or pancreas cancer cell.
A61K 47/48607 (6 dots): the tumour determinant is from kidney or bladder

cancer cell.
A61K 47/48615 (6 dots): the tumour determinant is from stomach or intestines cancer cell.
A61K 47/48623 (6 dots): the tumour determinant is from skin, nerves or brain cancer cell.
A61K 47/4863 (6 dots): the tumour determinant is from a cell of a blood cancer.
A61K 47/48638 (6 dots): the tumour determinant is from a cell of the reproductive system: ovaria, uterus, testes, prostate.
A61K 47/48646 (5 dots): the antibody is targeting an enzyme.
A61K 47/48653 (5 dots): the antibody is targeting an immunoglobulin, is an anti-idiotypic antibody.
A61K 47/48661 (5 dots): the antibody is a hybrid immunoglobulin.
A61K 47/48669 (6 dots): the antibody is an immunoglobulin containing regions, domains, residues from different species.
A61K 47/48676 (6 dots): the immunoglobulin has two or more different antigen-binding sites, e.g. bispecific or multispecific immunoglobulin.
A61K 47/48684 (4 dots): cluster-antibody conjugates, i.e. the modifying agent consists of a plurality of antibodies that are covalently linked to each other, or of different antigen-binding fragments fragments that are covalently linked to each other.

A61K 47/48692 (4 dots): polymer-drug antibody conjugates, e.g. mitomycin-detrxan-Ab; DNA-polylysine-antibody complex or conjugate (used for therapy).
A61K 47/487 (5 dots): the conjugate or the polymer being a starburst, a dendrimer, a cascade.
A61K 47/48707 (4 dots): antibody-chelate conjugate wherein the chelate is used for therapeutic purposes (but not for radiotherapy, see A61K 51/1093 and the corresponding A61K 51/1003 subclass, in that case).Antibody-chelate used for MRI: see A61K49.
A61K 47/48715 (3 dots): conjugates wherein the antibody is the modifying agent and wherein the linker, binder, spacer confers particular properties to the conjugate, e.g. peptidic enzymo-labile linker or acido-labile linker giving rise to an acido-labile immunoconjugate wherein the drug may be released from its antibody conjugated part in an acidic (tumoral) environment.
A61K 47/48723 (3 dots): pretargeting systems involving an antibody for targeting specific cells. The concept of "pre-targeting" covers the administration of the modifying agent (which is an agent able to target specific cells in the body), and of the pharmacologically/therapeutically-active agent (drug D) in several steps, their "binding" occurring at the in vivo targeted site. It involves administration in at least two steps, for example: (i) a conjugate T-A corresponding to a targeting agent able to target specific cells or receptors in the body (T) linked to a compound A, and (ii) a conjugate D-M corresponding to the drug linked to a

modifying agent M able to target the compound A. The sequence involves the administration of T-A and then D-M. Between step (i) and step (ii), a further compound able to bind to A and M may also be administered (e.g. during a clearing step). Classification is made according to the nature of T in the subclasses of A61K 47/4813, A61K 47/48346 and A61K 47/48723. In A61K 47/48723 and its subclasses, T is an antibody. Classification is also made according to the nature of the antibody in the appropriate A61K 47/48515 subclass. If M and A form a pair of biotin and (strept)avidin (or derivatives of biotin and (strept)avidin), then A61K 47/48753 is used as classification symbol.
A61K 47/4873 (4 dots): clearing therapy or enhanced clearance, i.e. wherein an antibody clearing agent is used in addition to T-A and D-M (see definitions in A61K 47/48723).
A61K 47/48746 (4 dots): two or three steps pretargeting systems (wherein an antibody conjugate is used in at least one of the steps; ligand-antiligand therapy]
A61K 47/48753 (5 dots): avidin-biotin system wherein at least one avidin- or biotin-conjugated antibody is used in a two- or three-steps pretargeting system.This subclass covers the case wherein M and A (see definition in A61K 47/48723) form a pair of biotin and (strept)avidin (or derivatives of biotin and (strept)avidin).
A61K 47/48761 (4 dots): ADEPT (antibody directed enzyme prodrug therapy). An enzyme is used as group A (see definition in A61K 47/48723) and is first targeted to specific cells via administration of the conjugate T-A. Then, the conjugate M-D which is a substrate for A is administered.

The enzyme A is able to cleave the conjugate M-D (which can be e.g. a prodrug). The drug D is thus released through enzymatic cleavage at particular targeted cells.
A61K 47/48769 (2 dots): the conjugate is characterized by a special physical or galenical form. The conjugates in the A61K 47/48769 subclasses correspond (i) either to a pharmacologically/therapeutically-active agent complexed/covalently linked to the special physical or galenical form (e.g. on the surface of a polymeric nanoparticle or liposome, or to polymeric chains in the matrix of a polymeric gel), (ii) or to a special physical or galenical form encapsulating the pharmacologically/therapeutically-active agent and modified on its surface or matrix by a modifying agent. In case (i), classification is made according to the nature of the special physical or galenical form in the appropriate A61K 47/48769 subclass and may be completed by the appropriate A61K 47/48 subclass defining the compound to which the pharmacologically/therapeutically-active agent is linked (e.g. A61K 47/48053 in case of a drug linked to a phospholipid and inserted in the bilayer surface of a liposome). In case (ii), classification is made according to the nature of the modifying agent.Physical or galenical forms not modified by a modifying agent and/or wherein the pharmacologically/therapeutically-active agent is not complexed/covalently linked to said forms, are not classified in A61K 47/48, but in A61K9.
A61K 47/48776 (3 dots): forms of ingredients not provided for by groups A61K 47/48784 to A61K 47/48992, e.g. cells, cell fragments, viruses, ghosts, red blood cells, viral vectors having the

pharmacologically/therapeutically-active agent complexed or covalently linked to, or being themselves modified by complexation or covalent linkage by a modifying agent.Simple encapsulation in cells is to be classified in A61K 9/5068; simple encapsulation in a virus capsid to be classified in A61K 9/5184.
A61K 47/48784 (3 dots): the form is semi-solid, an ointment, a gel, a hydrogel, a solidifying gel.
A61K 47/48792 (3 dots): the form is a colloid, emulsion (having at least a dispersed/continuous oil phase and a dispersed/continuous aqueous phase), a dispersion, suspension.
A61K 47/488 (4 dots): the form is a micro-emulsion, nano-emulsion or micelle. Micro-emulsion means that the dispersed phase is in the form of globules having a diameter above or equal to 1 micrometer. Nano-emulsion means that the dispersed phase is in the form of globules having a diameter below 1 micrometer (nano-emulsion). Micelles comprise a monolayer of surfactant molecules that are aggregated head-to-head and tail-to-tail, thus forming a small spherical particle; micelles can be normal (surfactant heads are hydrophilic) or inverse. Simple encapsulation of a drug in micelle: see A61K 9/1075. Micelles modified by a polymer because they incorporate a polymer-lipid conjugate are only classified in A61K 47/488 if the polymer modifying the lipid is unusual. Micelles which are pegylated because they incorporate a pegylated lipid are not classified in A61K 47/488 but in A61K 9/1075.
A61K 47/48807 (5 dots): micelles formed by phospholipids

A61K 47/48815 (4 dots): the form is a liposome (bilayered vesicle) having its surface modified by covalent attachment or complexation of the pharmacologically/therapeutically-active agent and/or modifying agent. Simple encapsulation of a drug in a liposome which is not functionalised on its surface by a modifying agent: see A61K 9/127. Liposomes modified by a polymer because they incorporate a polymer-lipid conjugate are only additionally classified in A61K 47/48815 if the polymer modifying the lipid is unusual. Liposomes which are pegylated because they incorporate a pegylated lipid are not classified in A61K 47/48815 but in A61K 9/1271.When the surface of the liposome is functionalised by a modifying agent (in case of antibodies, see A61K 47/48823), classification is also made according to the nature of this modifying agent (e.g. a liposome modified on its surface by a peptide is classified in A61K 47/48815 and A61K 47/48238). Liposomes wherein the pharmacologically/therapeutically-active agent is linked to a phospholipid of the liposomal surface are classified in A61K 47/48815 and A61K 47/48053.
A61K 47/48823 (5 dots): the form is a liposome which is modified on its surface by an antibody.Classification is also made according to the nature of the antibody in the appropriate A61K 47/48515 subclass.
A61K 47/4883 (5 dots): the form is a polymersome, i.e. a liposome with polymerisable or polymerized bilayer-forming substances.Liposomes comprising polymers grafted on their surface are not classified in A61K 47/4883, but in A61K 47/48815 if the polymer is unusual, or in A61K 9/1271.

A61K 47/48838 (4 dots): the form is a lipoprotein vesicle, e.g. HDL and LDL proteins.
A61K 47/48846 (4 dots): the form is a ribbon, tubule cochleate.
A61 K47/48W8 (3 dots): the form is a particulate, powder, adsorbate, bead, sphere.
A61K 47/48861 (4 dots): the form is an inorganic particle, e.g. a ceramic particle, silica particle, ferrite, synsorb.When the inorganic particle is a magnetic particle and is guided from outside the body with the means of a magnetic field, add the A61K 41/00 classification symbol.
A61K 47/48869 (4 dots): the form is a micro/nano-capsule or a micro/nano-bubble, i.e. a hollow or gas micro/nano-particle or sphere, a gas-filled micro/nano-particle for use in therapy. Micro/nano-bubbles used only for ultrasound imaging are classified in A61K 49/223 or A61K 49/225 only, and not in A61K 47/48869.Pharmacologically/therapeutically-active agents released from a micro/nano-capsule by acoustic/ultrasound activation are also classified in A61K 41/0028 (and A61K 9/0009).
A61K 47/48876 (4 dots): the form is a solid microparticle having no hollow or gas-filled core. Its size or diameter is higher or equal to 1 micrometer).
A61K 47/48884 (5 dots): the form is a nanoparticle, e.g. an immuno-nanoparticle. Its size or diameter is smaller than 1 micrometer. Classification is also made according to the nature of the antibody with the appropriate A61K 47/48515 subclass.

A61K 47/48892 (6 dots): the material constituting the nanoparticle is a polymer. The subclasses A61K 47/48169 are not additionally used.
A61K 47/489 (7 dots): the material constituting the nanoparticle is a polymer obtained by reactions only involving carbon to carbon, e.g. poly(meth)acrylate, polystyrene, polyvinylpyrrolidone, polyvinylalcohol.
A61K 47/48907 (7 dots): the material constituting the nanoparticle is a polymer obtained otherwise than by reactions involving carbon to carbon unsaturated bonds, e.g. polylactic acid, PLGA (polylactide-co-glycolide), polyacrylamide, polyglycerol.
A61K 47/48915 (8 dots): the polymer is PLGA, PLA or polyglycolic acid
A61K 47/48923 (7 dots): the polymer is a polysaccharide, e.g. starch, chitosan, chitin, cellulose, pectin.
A61K 47/4893 (4 dots): the form is a granulate or an agglomerate.
A61K 47/48938 (3 dots): the form is a pill, tablet, lozenge, capsule.
A61K 47/48961 (3 dots): the conjugate is in the form of a host-guest, i.e. is an inclusion complex, e.g. clathrate, cavitate, fullerene.
A61K 47/48969 (4 dots): inclusion is performed with a cyclodextrin.Cyclodextrins used as simple excipients are classified in A61K 47/40.
A61K 47/48976 (3 dots): the form is a fibre, textile, slabb, sheet

A61K 47/48984 (3 dots): the form is a plaster, bandage, dressing, patch.
A61K 47/48992 (3 dots): the form is a device, kit .e.g. stent, microdevice

References relevant to classification in this subclass/group

This subclass/group does not cover:

This subclass/group does not cover:

simple salts of pharmacologically active agents	A61K 31/00
simple chemical modification of known drugs by a chemical group (e.g., alkyl)	C07, A61K 31/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Labelling of peptides/proteins	C07K 1/13
Enzymes or proenzymes	C12N 9/00
The class of the active ingredient may provide relevant prior art.	

Special rules of classification within this subclass/group

In the subgroups depending on A61K 47/48, the classification is based on the non-active ingredient, i.e. the modifying agent, because it is dependent on the main group A61K 47/00.In addition to this , for the conjugates of an antibody, the pharmacologically/therapeutically-active agent of the conjugate is also classified, in the subgroups of A61K 47/48376. The modifying group must

be part of a well-defined class of compounds.The last place rule does not apply in A61K 47/48, i.e., all aspects of the invention are classified. For each aspect of the invention to be classified, the most detailed symbol is given as classification. Therefore, e.g. a liposome modified on its external surface by a modifying agent, is classified both in A61K 47/48815 and in the appropriate A61K 47/48 subclass (e.g. A61K 47/48238 for a peptide/protein, the appropriate A61K 47/48515 subclass for an antibody). Targeted drug delivery systems as defined in A61K 47/489H4S, A61K 47/48346 and /KA61K 47/48723 comprise more than one component. For example, in ADEPT, one component carries the enzyme to its target, and the other the prodrug. Although less detailed, the classification of conjugates in which the modifying component is a peptide follows a classification similar to that in the field of new peptides or proteins, i.e. C07K 14/00 and subgroups. Similarly, the classification of conjugates in which the modifying component is an antibody, the classification of the characterising antibody follows a classification similar to that of new antibodies, C07K 16/00 and subgroups, again less detailed. For the specificity of the antibody, the same rules are followed as for the classification in C07K 16/00.For the specificity of the antibody, if the antibody is new, the corresponding class in C07K 16/00 and subgroups is also given.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

ADEPT	Antibody-Directed Enzyme-Prodrug Therapy
VDEPT	Virus-Directed Enzyme-Prodrug Therapy
PDEPT	Polymer-Directed Enzyme-Prodrug Therapy
ECTA	Enzyme-Catalyzed Therapeutic Agent

A61K 48/00

Medicinal preparations containing genetic material which is inserted into cells of the living body to treat genetic diseases; Gene therapy

Definition statement

This subclass/group covers:

Genetic material encoding proteins, the in vivo expression of which results in an in vivo therapeutic effect being attained. The protein in question may be expressed directly from the delivered nucleic acid sequence, or may, for example, be involved in a recombination process with a mutant, 'defective' gene, protein expression from the 'repaired' gene then ensuing at a time thereafter. The expression of the protein may be to replace / complement a 'defective protein', or may be to provide an entity (such as an enzyme) which per se is therapeutic (for example in the context of cancer therapy).

Relationship between large subject matter areas

This subject area falls within the field of biotechnology. Related areas include viruses (C12N 7/00), transgenic animals (A01K 67/027), mutation, genetic engineering, vectors, plasmids (C12N 15/00), proteins (C07K 14/00), antibodies (C07K 16/00), medicinal preparations containing various tissues, organisms, materials or reaction products thereof (A61K 35/00), cells (C12N 5/00), enzymes (C12N 9/00), therapeutic uses of proteins (A61K 38/00), vaccines (A61K 39/00).

References relevant to classification in this group

This subclass/group does not cover:

Vaccines, i.e. the in vivo expression	A61K 39/00

of a protein as arising from for example the delivery of a nucleic acid encoding the protein, wherein generation of an immune response against the encoded protein results in a prophylactic or therapeutic effect.	
Antisense nucleic acids, siRNA	C12N 15/113
Non-coding nucleic acids used for therapy, for example when used as 'immunomodulating' agents.	A61K 31/7088 A61K 2039/55561
Therapeutic uses of proteins. Classification in the present group (A61K 48/00) should only be made wherein attribution of a therapeutic effect due to expression of the polynucleotide encoding the protein following delivery of nucleic acid is able to be made.	A61K 38/00
Cells. Clearly excluded are the classification of cells per se. However, cases arise where cells are used for therapy following ex vivo transfection with a nucleic acid encoding therapeutic protein. Following in vivo delivery, therapy resulting as a consequence of the ex vivo transfection step, i.e. arising as a result of the modification carried out, should be classified in the present group. Indexing Codes for the cellular aspect (A61K 35/00) may be added. If therapy arises only as a consequence of the cells per se being delivered, and not due to the manner in which such have been modified ex vivo, classification in the subclass for gene therapy should not be made, and instead the gene therapy (A61K 48/00) code should be given.	C12N 5/06

Informative references

Attention is drawn to the following places, which may be of interest for search:

Medical uses of proteins	A61K 38/00
Medicinal preparations containing various tissues, organisms, materials or reaction products thereof	A61K 35/00
Viral vectors	C12N 15/86
Vectors for animal cells	C12N 15/85
Proteins	C07K 14/00
Liposomes	A61K 9/127
Medicinal preparations characterised by the non-active ingredient	A61K 47/00
Specific therapeutic activities	A61P (IPC)
Antibodies	C07K 16/00

Special rules of classification within this group

Enabling subject matter should be classified, that is to say, subject matter, particularly that pertaining to the technical effect in question, which the skilled person would be able to carry out based on the teachings of the application without undue burden. Subject matter which is enabling but not clearly a technical contribution over the art should also be classified. Subject matter which is purely conjectory, hypothetical or theoretical, should not be classified. An example of such is when a particular substance is stated to be for the treatment of a list of diseases but for which no data, even in an in vitro or animal model setting, of relevance to the treatments sought, is made available. On the other hand, subject matter supported by data which whilst for example derived only from an in vitro setting but which lends at least partial credibility to an in vivo treatment, should be classified.

Subgroups of the main group were introduced in 2002. Due to advancing technology, no division of older documents into said groups was, or has been, systematically made.

A61K 49/00

Preparations for testing in vivo

Definition statement

This subclass/group covers:

This subclass/group covers:

Contrast agents for use in diagnostic imaging methods performed in vivo, or for detecting in vivo.

Separate subgroups exist for imaging using luminescence or staining in vivo (A61K 49/001), X-ray (A61K 49/04), Magnetic Resonance (A61K 49/06) or ultrasound (A61K 49/22).

General contrast agents, or multifunctional, i.e. multimodal contrast agents (i.e., for use in more than one imaging technique) are classified in A61K 49/0002

General screening or testing of compounds for diagnosis of disorders, assessment of biological conditions or parameters is classified in A61K 49/0004.

Relationship between large subject matter areas

An apparatus used for in vivo imaging is classified in A61B.

In the preparation of new organic compounds and their use in X-ray contrast preparations, classification is only made in the relevant subclasses C07C to C07J according to the type of compound.

Galenical aspects of pharmaceutical compositions: if this is an important aspect of the invention, it may also be classified in A61K 9/00 and/or A61K 47/00 to A61K 47/46.

References relevant to classification in this group

This subclass/group does not cover:

Preparations for testing in vitro or ex vivo	G01N, C12Q
Preparations for testing in vivo using radioactive substances, or substances labeled with a radioactive isotope used for in vivo imaging or detection	A61K 51/00

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

In vivo	in the living animal or performed on/in

	contact with the living animal
Ex vivo	in a sample taken from the living animal
In vitro	literally: in glass. Tests in vitro are performed outside the living or dead body, e.g. in a test tube or a Petri dish.

A61K 49/0002

[N: General or multifunctional contrast agents, e.g. chelated agents]

Definition statement

This subclass/group covers:

General contrast agents are e.g. chelating agents for which several imaging methods are exemplified and/or claimed, e.g., an antibody labeled with a chelating group, where the chelating group is used to complex either gadolinium (for MRI) or a heavy metal (for X-ray imaging). This subgroup also includes conjugates of a targeting agent, linked to a chelating group, wherein the application mentions several imaging techniques, without an actual example.

Multifunctional or multimodal agents are preparations, in which the contrast agent is suitable for more than one imaging technique, e.g. agents for dual mode imaging, e.g., containing a moiety for MRI and a fluorescent moiety.

The classification codes of the individual imaging techniques are also given.

A61K 49/0004

[N: Screening or testing of compounds for diagnosis of disorders, assessment of conditions, e.g. renal clearance, gastric emptying, testing for diabetes, allergy, rheuma, pancreas functions]

Definition statement

This subclass/group covers:

- compositions used for assessing biological conditions or parameters of a patient or mammal.

- skin tests.

- screening methods performed in vivo using non-human animal models wherein the animal model is especially adapted for this screening, in order to find new agents for treating a disorder or disease.

A61K 49/0006 (2 dots): skin tests, e.g. intradermal testing, tests strips, delayed hypersensitivity.
A61K 49/0008 (2 dots): screening agents using (non-human) animal models, transgenic animal models or chimeric hosts, e.g. Alzheimer's disease animal model, transgenic model for heart failure.

References relevant to classification in this group

This subclass/group does not cover:

Animal models as such	A01K 67/027
Animal models used to verify or prove that a substance has a certain pharmacological activity, wherein the invention is the use of the compound for this activity	A61K 31/00

Special rules of classification within this group

(Non-human) Animal models (e.g. transgenic model for heart failure, Alzheimer disease animal model) are only classified in subgroup A61K 49/0008 if they are used in a method for testing/screening agent in vivo and if this testing/screening for therapeutic usefulness in vivo is (part of) the invention.

This subgroup is not used for those documents in which the examples are using a well known animal model to verify if an agent does indeed exert the effect it is supposed to, where the actual invention is the compound or its use.

A61K 49/001

[N: Preparation for luminescence or biological staining]

Definition statement

This subclass/group covers:

Diagnostic compositions containing an agent detected in vivo using fluorescence, phosphorescence, (chemo)luminescence or dying/colouring/staining.

A61K 49/0013 (2 dots): luminescence.
A61K 49/0015 (3 dots): phosphorescence.
A61K 49/0017 (3 dots): fluorescence (in vivo).
A61K 49/0019 (4 dots): characterised by the fluorescent group.
A61K 49/0021 (5 dots): the fluorescent group being a small organic (i.e. not oligomeric, polymeric, dendritic) molecule. If this fluorescent group is complexed/covalently linked to a carrier, classification is also made according to the nature of the carrier in the appropriate A61K 49/005 subclass.
A61K 49/0023 (6 dots): di-or triarylmethane dye (xanthene dyes to be classified in A61K 49/0041).
A61K 49/0026 (6 dots): acridine dyes.
A61K 49/0028 (6 dots): oxazine dyes.
A61K 49/003 (6 dots): thiazine dyes.
A61K 49/0032 (6 dots): methine dyes, e.g. cyanine dyes.
A61K 49/0034 (7 dots): indocyanine green, i.e. ICG, cardiogreen.
A61K 49/0036 (6 dots): porphyrins. If used in photodynamic therapy: A61K 41/0071 or A61K 41/0076.If used as targeting group (modifying agent): A61K 47/48069.

A61K 49/0039 (6 dots): coumarin dyes.
A61K 49/0041 (6 dots): xanthene dyes (used in vivo, e.g. administered to a mice, not only used in vitro), e.g. rhodamines, rose Bengal.
A61K 49/0043 (7 dots): fluorescein (used in vivo).
A61K 49/0045 (5 dots): the fluorescent agent being a peptide or protein (used in vivo).
A61K 49/0047 (6 dots): green fluorescent protein (GFP).
A61K 49/005 (4 dots): characterised by the carrier molecule carrying the fluorescent agent. Classification is also made according to the nature of the fluorescent group in the appropriate A61K 49/0019 subclass.
A61K 49/0052 (5 dots): small organic molecules, i.e. not being oligomers, polymers, dendrimers.
A61K 49/0054 (5 dots): macromolecular compounds, i.e. oligomers, polymers, dendrimers.
A61K 49/0056 (5 dots): peptides, proteins, polyamino acids.
A61K 49/0058 (5 dots): antibodies
A61K 49/006 (2 dots): biological staining of tissues in vivo, e.g. methylene blue or toluidine blue O administered in the buccal area to detect epithelial cancer cells , dyes used for delineating tissues during surgery. If the dye used for staining is fluorescent, the appropriate A61K 49/0019 subclass is also given.

A61K 49/0063 (2 dots): characterised by a special physical or galenical form, e.g. emulsions, microspheres.Classification is also made according to the nature of the luminescent/fluorescent agent and/or the carrier carrying the fluorescent agent.
A61K 49/0065 (3 dots): the luminescent/fluorescent agent having itself a special physical form, e.g. gold nanoparticle.
A61K 49/0067 (4 dots): quantum dots, fluorescent nanocrystals.Quantum dots modified on their surface by an antibody are also classified in A61K 49/0058.
A61K 49/0069 (3 dots): the agent being in a particular physical galenical form. If the physical or galenical form containing a fluorescent agent is modified by a particular agent, classification is also made according to the nature of this agent in the appropriate A61K 49/005 subclass.
A61K 49/0071 (4 dots): solution, solute.
A61K 49/0073 (4 dots): semi-solid, gel, hydrogel, ointment.
A61K 49/0076 (4 dots): dispersion, suspension (e.g. particles in a liquid), colloid, emulsion.
A61K 49/0078 (5 dots): micro-emulsion, nano-emulsion.Micro-emulsion means that the dispersed phase is in the form of globules having a diameter above or equal to 1 micrometer. Nano-emulsion means that the dispersed phase is in the form of globules having a diameter below 1 micrometer (nano-emulsion).

A61K 49/008 (5 dots): lipoprotein vesicle, e.g. HDL and LDL proteins
A61K 49/0082 (5 dots): micelle, e.g. phospholipidic micelle and polymeric micelle. Micelles comprise a monolayer of surfactant molecules that are aggregated head-to-head and tail-to-tail, thus forming a small spherical particle; micelles can be normal (surfactant heads are hydrophilic) or inverse
A61K 49/0084 (5 dots): liposome (i.e. bilayered vesicular structure). When the surface of the liposome encapsulating a fluorescent agent and used in vivo is functionalised by a modifying agent, classification is also made according to the nature of this modifying agent (e.g. a liposome modified on its surface by a peptide is classified in A61K 49/0084 and A61K 49/0056). Liposomes encapsulating a fluorescent agent, used in vivo and modified on their surface by a polymer because they incorporate a polymer-lipid conjugate, are only additionally classified in A61K 49/0054 if the polymer modifying the lipid is unusual. Liposomes encapsulating a fluorescent agent which are pegylated because they incorporate a pegylated lipid are just classified in A61K 49/0084 (not in A61K 49/0054).
A61K 49/0086 (6 dots): polymersome, i.e. liposome with polymerisable or polymerized bilayered-forming substances.
A61K 49/0089 (4 dots): particulate, powder, adsorbate, bead, sphere.
A61K 49/0091 (5 dots): microparticle, microcapsule, microbubble, microsphere, microbead (i.e. having a size or diameter higher or equal to 1

micrometer). When the surface of the microparticle encapsulating a fluorescent agent and used in vivo is functionalised by a modifying agent, classification is also made according to the nature of this modifying agent (e.g. a microparticle modified on its surface by a peptide is classified in A61K 49/0091 and A61K 49/0056).
A61K 49/0093 (6 dots): nanoparticle, nanocapsule, nanobubble, nanosphere, nanobead (i.e. having a size or diameter smaller than 1 micrometer), e.g. polymeric nanoparticle.
A61K 49/0095 (7 dots): nanotubes.
A61K 49/0097 (4 dots): cells, viruses, ghosts, red blood cells, viral vectors (used in vivo).

Special rules of classification within this group

When the formulation aspect is (part of) the invention (e.g. liposomal formulations), or when the physical form is the fluorescence-active part (e.g. quantum dots), classification is also made according to the appropriate A61K 49/0063 subclass.

In the fluorescence subgroups, the compound can be characterised by the fluorescing group, by the carrier/targeting group and/or the physical /galenical form. If the three aspects are present, the three classes must be given.

Glossary of terms

In this subclass/group, the following terms (or expressions) are used with the meaning indicated:

Luminescence	light emanating from the compound or composition when used in vivo

A61K 49/04

X-ray contrast preparations

Definition statement

This subclass/group covers:

compositions used for enhancing the contrast of an X-ray image taken in vivo or in contact with the living animal/patient.

A61K 49/0404 (2 dots): containing barium sulphate.
A61K 49/0409 (2 dots): physical forms, mixtures of two different X-ray contrast-enhancing agents, containing at least one X-ray contrast-enhancing agent which is not a halogenated organic compound.
A61K 49/0414 (3 dots): particles, beads, capsules, spheres.
A61K 49/0419 (4 dots): microparticles, microbeads, microcapsules, microspheres (i.e. having a size or diameter higher or equal to 1 micrometer).
A61K 49/0423 (4 dots): nanoparticles, nanobeads, nanospheres, nanocapsules (i.e. having a size or diameter smaller than 1 micrometer).
A61K 49/0428 (5 dots): surface-modified nanoparticles, e.g. immuno-nanoparticles.
A61K 49/0433 (2 dots): containing an organic halogenated X-ray contrast-enhancing agent.
A61K 49/0438 (3 dots): organic X-ray contrast-enhancing agent comprising an iodinated group or an iodine atom, e.g. iopamidol.
A61K 49/0442 (3 dots): polymeric X-ray contrast-enhancing agent comprising a halogenated group.
A61K 49/0447 (3 dots): physical forms, mixtures of two different X-ray

contrast-enhancing agents, containing at least one X-ray contrast-enhancing agent which is a halogenated organic compound.
A61K 49/0452 (4 dots): solutions, e.g. for injection.
A61K 49/0457 (4 dots): semi-solid forms, ointments, gels, hydrogels.
A61K 49/0461 (4 dots): dispersions,colloids, emulsions, suspensions.
A61K 49/0466 (5 dots): liposomes, lipoprotein vesicles (e.g. HDL and LDL lipoproteins), phospholipidic or polymeric micelles.
A61K 49/0471 (5 dots): perflubron (i.e. perfluoroctylbromide, C8F17Br) emulsions
A61K 49/0476 (4 dots): particles, beads, capsules, spheres.
A61K 49/048 (5 dots): microparticles, microbeads, microcapsules, microspheres (i.e. having a size or diameter higher or equal to 1 micrometer).
A61K 49/0485 (5 dots): nanoparticles, nanobeads, nanospheres, nanocapsules (i.e. having a size or diameter smaller than 1 micrometer).
A61K 49/049 (6 dots): surface-modified nanoparticles, e.g. immune-nanoparticles.
A61K 49/0495 (4 dots): intended for oral administration

A61K 49/06

Nuclear magnetic resonance (NMR) contrast preparations; Magnetic resonance imaging (MRI) contrast preparations [N0201]

Definition statement

This subclass/group covers:

Contrast agents used for enhancing the (diagnostic) imaging or detection in vivo, i.e., in the living animal or patient. Such contrast agents are active in MRI because they bear an NMR-active nucleus (e.g. 1H, 13C, 31P, 19F), or because they have a magnetisable group (e.g. iron oxide).

A61K 49/06 (1 dot): characterised only by the (inorganic) MRI-active nucleus, e.g. 129Xe.
A61K 49/08 (2 dots): characterised by the carrier carrying the MRI-active nucleus, e.g. inorganic carrier.
A61K 49/085 (3 dots): conjugated system. The MRI-active nucleus is complexed to a complex-forming compound (e.g. chelating group) or is covalently linked to a molecule, which is further covalently linked/conjugated to a carrier (e.g. polymer). Classification is also made according to the nature of the carrier, e.g. [Gd3+]DOTA-polymer to be classified in A61K 49/085 and in the appropriate A61K 49/12 adequate subclass.
A61K 49/10 (3 dots): the carrier is an organic compound, e.g. 13C-labelled molecule or perfluorinated alkane (used as MRI in vivo probe) or a small organic molecule (e.g. a sugar) linked to a Gd-chelate.
A61K 49/101 (4 dots): the carrier is a complex-forming compound able to form MRI-active complexes with paramagnetic metals. In the A61K 49/101 subgroups, the MRI-active nucleus is complexed to a complex-forming compound (e.g. chelating group). Classification is

made according to the nature of this complex-forming agent, if it is either an uncommon/new complexing agent (not the usual DTPA, DOTA, DOTP, etc...groups) that forms the real contribution to the claimed MRI invention, or if it is not conjugated to any further molecule, e.g. which is not conjugated to a polymer, peptide, protein or antibody. In that latter case, the MRI probe is e.g. a paramagnetic metal chelate.
A61K 49/103 (5 dots): the complex-forming compound is acyclic, e.g. DTPA
A61K 49/105 (6 dots): the metal complex is Gd-DTPA.
A61K 49/106 (5 dots): the complex-forming compound is cyclic, e.g. DOTA.
A61K 49/108 (6 dots): the metal complex is Gd-DOTA.
A61K 49/12 (4 dots): the carrier is an organic macromolecular compound, i.e. an oligomeric, polymeric, dendrimeric molecule (not being a peptide, protein, polyamino acid (see A61K 49/14 and subclasses) or an antibody (see A61K 49/16)).
A61K 49/122 (5 dots): dimers of complexes or complex-forming compounds.
A61K 49/124 (5 dots): dendrimers, dendrons, hyperbranched compounds, Said compounds are either complexes or complex-forming compounds, or they form a backbone to which MRI active nuclei are complexed/covalently linked through chelating groups (in that latter case, the subclass A61K 49/085 is also given). Dendrimeric, dendronised or

hyperbranched polyamino acids used as carriers are also classified in A61K 49/146.
A61K 49/126 (5 dots): linear polymers, e.g. dextran, inulin, PEG.
A61K 49/128 (6 dots): comprising multiple complex or complex-forming groups, being either part of the linear polymeric backbone or being pending groups covalently linked to the linear polymeric backbone (in that latter case, A61K 49/085 is also given).
A61K 49/14 (4 dots): the carrier is a peptide (polyamino acid, A61K 49/146) or protein (not an antibody, see A61K 49/16). If the MRI-active nucleus is linked to the peptide/protein/polyamino acid via a complexing/chelating group, the subclass A61K 49/085 should also be given . If the peptide/protein/polyamino acid is a dendrimer, a dendron, or hyperbranched, then the A61K 49/124 is also given.
A61K 49/143 (5 dots): the protein being an albumin, e.g. HSA, BSA, ovalbumin.
A61K 49/146 (5 dots): the peptide is a polyamino acid, e.g. poly-lysine
A61K 49/16 (5 dots): the protein is an antibody, an immunoglobulin or a fragment thereof.If the MRI-active nucleus is linked to the antibody via a complexing/chelating group, the subclass A61K 49/085 should also be given.
A61K 49/18 (2 dots): characterized by a special physical form, e.g. an emulsion, microcapsule, liposome.Classification is also made according to the molecule

complexing/bearing the MRI-active nucleus.
A61K 49/1803 (3 dots): semi-solid preparations, e.g. ointments, gels, hydrogels.
A61K 49/1806 (3 dots): suspensions, emulsions, colloids, dispersions.
A61K 49/1809 (4 dots): micelles, e.g. phospholipidic or polymeric micelles.
A61K 49/1812 (4 dots): liposomes, polymersomes, e.g. immunoliposomes. If the paramagnetic metal complexes are covalently linked to the bilayered membrane, then the A61K 49/085 subclass is also given.Liposomes modified on their external surface by a targeting agent, e.g. an antibody are classified in A61K 49/1812 without further indication for the targeting agent.
A61K 49/1815 (4 dots): compo-inhalant, e.g. breath tests.
A61K 49/1818 (3 dots): particles, e.g. uncoated or non-functionalised microparticles or nanoparticles. For nanoparticles (i.e. having a size or diameter smaller than 1 micrometer), the subclasses B82Y 5/00 and B82Y 15/00 are also given.
A61K 49/1821 (4 dots): coated or functionalised microparticles/nanoparticles.
A61K 49/1824 (5 dots): coated/functionalised nanoparticles (not being liposomes (see A61K 49/1812), nano-emulsions (A61K 49/1806), micelles (A61K 49/1809)).
A61K 49/1827 (6 dots): having a

super/para/magnetic core, being a solid MRI-active material (e.g. magnetite) or composed of a plurality of MRI-active (e.g. Gd-chelates) organic agents or nuclei (e.g. Eu3+) encapsulated/entrapped in the core of the coated/functionalised nanoparticle.
A61K 49/183 (7 dots): having a super/para/magnetic core coated/functionalised with an inorganic material or being composed of an inorganic material entrapping the MRI-active nucleus (e.g. silica core doped with a MRI-active nucleus).
A61K 49/1833 (7 dots): having a super/para/magnetic core coated/functionalised with a small organic molecule (i.e. not oligomeric, polymeric, dendrimeric).
A61K 49/1836 (8 dots): the small organic molecule being a carboxylic acid having less than 8 carbon atoms in the main chain
A61K 49/1839 (8 dots): the small organic molecule being a lipid, a fatty acid having 8 or more carbon atoms in the main chain, or a phospholipid
A61K 49/1842 (8 dots): the small organic molecule being a phosphate or a phosphonate, not being a phospholipid.
A61K 49/1845 (8 dots): the small organic molecule being a carbohydrate (monosaccharides, discacharides).
A61K 49/1848 (8 dots): the small organic molecule being a silane.
A61K 49/1851 (7 dots): having a super/para/magnetic core

coated/functionalised with an organic macromolecular compound, i.e. oligomeric, polymeric, dendrimeric organic molecule not being a peptide/protein (classified in A61K 49/1866), a polyamino acid (classified in A61K 49/1872), an antibody (classified in A61K 49/1875).In case of block copolymers, the different (large) blocks are classified in the appropriate A61K 47/48169 or A61K 47/48238 subclasses.
A61K 49/1854 (8 dots): the organic macromolecular compound being obtained by reactions only involving carbon-to-carbon unsaturated bonds, e.g. poly(meth)acrylate, polyacrylamide, polyvinylpyrrolidone, polyvinylalcohol.
A61K 49/1857 (8 dots): the organic macromolecular compound being obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds, e.g. PLGA.
A61K 49/186 (9 dots): the organic macromolecular compound is polyethyleneglycol (PEG).
A61K 49/1863 (8 dots): the organic macromolecular compound is a polysaccharide or derivative thereof, e.g. chitosan, chitin, cellulose, pectin, starch.
A61K 49/1866 (7 dots): the nanoparticle having a super/para/magnetic core coated/functionalised with a peptide, e.g. protein, polyamino acid.
A61K 49/1869 (8 dots): coated/functionalised with a protein being an albumin, e.g. HSA, BSA, ovalbumin.
A61K 49/1872 (8 dots):

coated/functionalised with a polyamino acid, e.g. polylysine, polyglutamic acid.
A61K 49/1875 (7 dots): coated/functionalised with an antibody.
A61K 49/1878 (6 dots): the nanoparticle having a magnetically inert core and a super/para/magnetic coating
A61K 49/1881 (7 dots): wherein the coating consists of chelates (i.e. chelating group complexing a super/para/magnetic ion) bound to the surface. The symbol A61K 49/085 is not needed.
A61K 49/1884 (5 dots): nanotubes, nanorods or nanowires
A61K 49/1887 (5 dots): agglomerates, clusters, i.e. more than one super/para/magnetic microparticle or nanoparticle are aggregated or entrapped in the same maxtrix.
A61K 49/189 (3 dots): host-guest complexes, e.g. cyclodextrins.
A61K 49/1893 (4 dots): molecular sieves.
A61K 49/1896 (3 dots): not provided for elsewhere, e.g. cells, viruses, ghosts, red blood cells, virus capsides.
A61K 49/20 (2 dots): containing free radicals, e.g. trityl radical for overhauser.

References relevant to classification in this group

This subclass/group does not cover:

Magnetic targeting of therapeutic agents	A61K 9/00, A61K 41/00
Magnetic compositions used for therapeutic heating of a living body part	A61K 41/0052
Pharmaceutical compositions in which the active agent is chemically bound to inorganic nanoparticles	A61K 47/48861

Informative references

Attention is drawn to the following places, which may be of interest for search:

Microcapsules containing magnetic carrier material, e.g. ferrite for drug targetting	A61K 9/5094
Detecting, measuring or recording for diagnosis involving electronic or nuclear magnetic resonance	A61B 5/055
Introduction of isotopes of elements into organic compounds (e.g. deuterium, 13C)	C07B 59/00

Special rules of classification within this group

The classification is made according to the carrier which is covalently linked/complexed to the MRI-active nucleus that is responsible for the NMR/MRI signal (e.g. Gd3+), and according to the galenical aspect or physical form (in A61K 49/18 subclasses).

The complex-forming compound (e.g. chelating group) of an NMR/MRI-active metal ion is classified only if it is an uncommon agent that is the real contribution to the claimed invention, or if it is the only carrier (i.e. no targeting part like e.g. a peptide further linked to the chelating group).

Chelates (e.g. Gd-DOTA) conjugated to a further molecule are classified in A61K 49/085 and, additionally, according to the nature of this further

molecule, e.g. a MRI contrast agent being Gd-DOTA conjugated to glucose is classified in A61K 49/085 and A61K 49/10, a MRI contrast agent comprising a plurality of Gd-DOTA appending to a linear polymer backbone is classified in A61K 49/085 and A61K 49/128. MRI contrast agents which are based on MRI-active nanoparticles (e.g. iron oxide nanoparticles, MRI nanoparticles) are classified in the appropriate A61K 49/1818 subclass(es). If the nanoparticles have a super/para/magnetic core which is coated/functionalised with different compounds, classification is made according to the nature of all these different compounds (e.g. a nanoparticle having a super/para/magnetic core which is coated with an organic silane linked to a peptide is classified in A61K 49/1848 and A61K 49/1866). MRI contrast agents containing free radicals are classified in A61K 49/20.

A61K 49/22

Echographic preparations; Ultrasound imaging preparation

Definition statement

This subclass/group covers:

compositions used for the in vivo diagnosis using ultrasound activation, and/or wherein the detected signal is an acoustic signal (e.g. optoacoustic imaging)

A61K 49/22 (1 dot): echographic preparations, ultrasound imaging preparations, optoacoustic imaging preparations.
A61K 49/221 (2 dots): characterised by the targeting agent/modifying agent linked to the acoustically-active agent.
A61K 49/222 (2 dots): characterised

by a special physical form, e.g. emulsions, liposomes
A61K 49/223 (3 dots): micro-bubbles, hollow microspheres, free gas bubbles, gas microspheres
A61K 49/225 (3 dots): microparticles, microcapsules (gas-filled to be classified in A61K 49/223)
A61K 49/226 (3 dots): solutes, emulsions, suspensions, dispersions, semi-solid forms, e.g. hydrogels
A61K 49/227 (3 dots): liposomes, lipoprotein vesicles (e.g. LDL or HDL lipoproteins, micelles (e.g. phospholipidic or polymeric).
A61K 49/228 (3 dots): host-guest complexes, clathrates, chelates.

References relevant to classification in this group

This subclass/group does not cover:

Preparations liberating a therapeutically active compound by applying ultrasound	A61K 41/0028, A61K 9/00, A61K 47/00
Preparations containing sonosensitizers for use in therapy, sonoferese or ultrasonically enhanced transdermal delivery	A61K 41/0047, A61K 9/00, A61K 47/00

A61K 51/00

Preparations containing radioactive substances for use in therapy or testing in vivo

Definition statement

This subclass/group covers:

This subclass/group covers:

Preparations containing radioactive substances or substances that bear a radioactive label, used for therapy in humans or animals, or used for testing in vivo, diagnosis in vivo or diagnostic imaging in vivo.

The classification is made according to the carrier which is covalently linked/complexed to the radionuclide (e.g. 131I, 186Re), and according to the galenical aspect or physical form.

A61K 51/02 (1 dot): characterised by the carrier (agent or material covalently linked or complexing the radioactive nucleus).
A61K 51/025 (2 dots): inorganic Tc complexes or compounds.
A61K 51/04 (2 dots): organic compounds used as carriers.
A61K 51/0402 (3 dots): carboxylic acid carriers, fatty acids (not amino acids, see A61K 51/0406).
A61K 51/0404 (3 dots): lipids (e.g. triglycerides; not fatty acids (see A61K 51/0402); not cholesterol (see A61K 51/0493)), polycationic carriers not being oligomers, polymers, dendrimers.
A61K 51/0406 (4 dots): amines, polyamines (e.g. spermine, spermidine), amino acids, (bis)guanidines.
A61K 51/0408 (4 dots): phospholipids. Liposomes encapsulating the radioactive probe and/or having no radiolabelled phospholipids are classified in A61K 51/14E8.
A61K 51/041 (3 dots): heterocyclic compounds. In the A61K 51/041 subgroups, the last place rule is followed.

A61K 51/0412 (4 dots): having oxygen as the only ring hetero atom, e.g. fungichromin.
A61K 51/0414 (5 dots): having three-membered rings, e.g. oxirane, fumagillin.
A61K 51/0417 (5 dots): having four-membered rings, e.g. taxol.
A61K 51/0419 (5 dots): having five-membered rings with one oxygen as the only ring hetero atom, e.g. isosorbide.
A61K 51/0421 (5 dots): having six-membered rings with one oxygen as the only ring hetero atom.
A61K 51/0423 (5 dots): having two or more oxygen atoms in the same ring, e.g. crown ethers, guanadrel.
A61K 51/0425 (5 dots): compounds containing methylenedioxyphenol groups, e.g. sesamin.
A61K 51/0427 (5 dots): lactones.
A61K 51/0429 (4 dots): having sulfur as a ring hetero atom.
A61K 51/0431 (5 dots): having five-membered rings.
A61K 51/0434 (5 dots): having six-membered rings, e.g. thioxanthenes (thiotixene A61K 51/0459).
A61K 51/0436 (5 dots): having two or more sulfur atoms in the same ring.
A61K 51/0438 (5 dots): having oxygen in the same ring.

A61K 51/044 (4 dots): having nitrogen as a ring hetero atom, e.g. guanethidine, rifamycins (rifampin A61K 51/0459).
A61K 51/0442 (5 dots): having three-membered rings, e.g. aziridine.
A61K 51/0444 (5 dots): having four-membered rings, e.g. azetidine.
A61K 51/0446 (5 dots): having five-membered rings with one nitrogen as the only ring hetero atom, e.g. sulpiride, succinimide, tolmetin, buflomedil.
A61K 51/0448 (6 dots): tropane or nortropane groups, e.g. cocaine.
A61K 51/0451 (6 dots): having four such rings, e.g. phorphine derivatives, bilirubin, biliverdine, porphine derivatives (hemin, hematin A61K 51/0472).Porphyrins or texaphyrins used as complex-forming compounds, i.e. wherein the nitrogen atoms forming the central ring system complex the radioactive metal, are classified in A61K 51/0485.
A61K 51/0453 (5 dots): having five-membered rings with two or more ring hetero atoms, at least one of which being nitrogen, e.g. tetrazole.
A61K 51/0455 (5 dots): having six-membered rings with one nitrogen as the only ring hetero atom.
A61K 51/0457 (6 dots): vesamicol.
A61K 51/0459 (5 dots): having six-membered rings with two nitrogen atoms as the only ring hetero atoms, e.g. piperazine.
A61K 51/0461 (5 dots): having

six-membered rings with three nitrogens as the only ring hetero atoms, e.g. chlorazanil, melamine, (melarsoprol A61K 51/0472)
A61K 51/0463 (5 dots): having six-membered rings with at least one nitrogen and one oxygen as the ring hetero atoms, e.g. 1,2-oxazines.
A61K 51/0465 (5 dots): having six-membered rings with at least one nitrogen and one sulfur as the ring hetero atoms, e.g. sulthiame.
A61K 51/0468 (5 dots): having seven-membered rings, e.g. azelastine, pentylenetetrazole.
A61K 51/047 (6 dots): benzodiazepines.
A61K 51/0472 (4 dots): containing heavy metals, e.g. hemin, hematin, melarsoprol.
A61K 51/0474 (3 dots): complexes or complex-forming compounds, i.e. wherein a radioactive metal (e.g. 111In3+) is complexed or chelated by e.g. a N2S2, N3S, NS3, N4 chelating group. Classification is made according to the nature of this complex-forming agent, if it is either an uncommon/new complexing agent (not the usual DTPA, DOTA, DOTP, MAG3 etc...groups) that forms the real contribution to the claimed invention (radioimaging/radiotherapeutic agent), or if it is not conjugated to any further molecule, e.g. which is not conjugated to a polymer, peptide, protein or antibody. In that latter case, the radioactive agent is e.g. a radioactive metal chelate.
A61K 51/0476 (4 dots): complexes from monodendate ligands, e.g.

sestamibi.
A61K 51/0478 (4 dots): complexes from non-cyclic ligands, e.g. DTPA, MAG3.
A61K 51/048 (5 dots): DTPA (diethylenetriamine tetraacetic acid).
A61K 51/0482 (4 dots): chelates from cyclic ligands, e.g. DOTA.
A61K 51/0485 (4 dots): porphyrins, texaphyrins wherein the nitrogen atoms forming the central ring system complex the radioactive metal. Porphyrins used as simple heterocyclic carriers containing a radioactive nucleus (e.g. 11C) or substituted with a radioactive nucleus (e.g. 18F), are classified in A61K 51/0451.
A61K 51/0487 (4 dots): metallocenes, i.e. complexes based on a radioactive metal complexed by two HYPERLINK "http://en.wikipedia.org/wiki/Cyclopentadiene" \o "Cyclopentadiene" cyclopentadienyl HYPERLINK "http://en.wikipedia.org/wiki/Anion" \o "Anion" anions.
A61K 51/0489 (3 dots): phosphates or phosphonates (e.g. bone-seeking phosphonates; not being phospholpids, nucleotides or nucleic acids).
A61K 51/0491 (3 dots): sugars, nucleosides, nucleotides, oligonucleotides, nucleic acids, e.g. DNA, RNA, nucleic acid aptamers.
A61K 51/0493 (3 dots): steroids (e.g. cholesterol, testosterone).
A61K 51/0495 (3 dots): pretargeting, i.e. administration of an agent X

bearing the radioisotope/radioactive nucleus and of an agent Y capable of binding X and a cell Y in several steps (e.g. the radiolabelled agent is a radiolabelled biotin and the agent Y is a (strept)avidin moecule targeting specific cells). Classification is also made according to the nature of the carrier bearing/linked to the radioactive nucleus, e.g. an antibody.
A61K 51/0497 (3 dots): conjug ates with a carrier being an organic compounds.The compound which bears/complexes/chelates the radioactive nucleus, is covalently linked/complexed to the carrier being another (small) organic molecule (i.e. not oligomeric, polymeric, dendrimeric). Classification is also made according to the nature of this small organic molecule.In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (organic compound in A61K 49/04Z), the nature of this complex-forming compound is not classified except if the complexing/chelating group is the subject of the invention and is uncommon, e.g. 111In-DTPA-glucose is classified in A61K 51/0497 (not in A61K 51/048) and in A61K 51/0491.
A61K 51/06 (3 dots): carriers being organic macromolecular compounds, i.e. organic oligomeric, polymeric, dendrimeric molecules (not being peptides, proteins, polyamino acids (see A61K 51/08 and subclasses) or antibodies (see A61K 51/10 and subclasses)).
A61K 51/065 (4 dots): conjugates with carriers being macromolecules. The compund which bears/complexes/chelates the radioactive nucleus, is covalently linked/complexed to the carrier being

a macromolecule (not being a peptide, polyamino acid, protein, antibody). In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (organic macromolecular compound in A61K 49/06Z), the nature of this complex-forming compound is not classified except if it is the real contribution of the claimed invention and it is an uncommon complexing/chelating group, e.g. 111In-DTPA-PEG is classified in A61K 51/065 and new DTPA-like derivatives conjugated to PEG and complexing 111In for use in vivo is classified in A61K 51/0478 + A61K 51/065.
A61K 51/08 (3 dots): carriers being peptides, polyamino acids, proteins.
A61K 51/081 (4 dots): the protein is an albumin, e.g. human serum albumin (HSA), bovine serum albumin (BSA), ovalbumin.
A61K 51/082 (4 dots): the peptide is a RGD-containing peptide.
A61K 51/083 (4 dots): the peptide is octreotide or a somatostatin-receptor.binding peptide.
A61K 51/084 (4 dots): the peptide is oxytocin.
A61K 51/084 (4 dots): the peptide is neurotensin.
A61K 51/085 (4 dots): the peptide is alphaMSH (alpha melanocyte stimulating hormone).
A61K 51/086 (4 dots): the peptide is an annexin, e.g. annexin V.

A61K 51/088 (4 dots): conjugates with carriers being peptides, polyamino acids, proteins (not antibodies: see A61K 51/10 and subclasses).The compound which bears/complexes/chelates the radioactive nucleus, is covalently linked/complexed to the carrier being a peptide, polyamino acid, protein (not being an antibody). Classification is also made according to the nature of the protein (e.g. if it is BSA, then A61K 51/081 is also indicated). In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (peptide, protein, polyamino acid in A61K 51/088), the nature of this complex-forming compound is not classified except if it is the real contribution of the claimed invention and it is an uncommon complexing/chelating group, e.g. 111In-DTPA-interleukin 2 is classified in A61K 51/088; new DTPA-like derivatives conjugated to interleukin 2 and complexing 111In for use in vivo is classified in A61K 51/0478 and A61K 51/088.
A61K 51/10 (4 dots): the carrier is an antibody or an immunoglobulin, or a fragment (e.g. a camelised human single domain antibody).
A61K 51/1003 (5 dots): not used, see subgroups.
A61K 51/1006 (6 dots): the antibody is against/is targeting material from viruses.
A61K 51/1009 (6 dots): against material from bacteria.
A61K 51/1012 (6 dots): against material from fungi, lichens, algae.

A61K 51/1015 (6 dots): against material from plants.
A61K 51/1018 (6 dots): against material from animals or humans.
A61K 51/1021 (6 dots): against cytokines (e.g. growth factors, VEGF, TNF), lymphokines, interferons.
A61K 51/1024 (6 dots): against hormones, hormone-releasing or hormone-inhibiting factors.
A61K 51/1027 (6 dots): against receptors, cell-surface antigens, cell-surface determinants.
A61K 51/103 (7 dots): against receptors for growth factors or receptors for growth regulators.
A61K 51/1033 (7 dots): against receptors for cytokines, lymphokines, interferons.
A61K 51/1036 (7 dots): against hormone receptors.
A61K 51/1039 (7 dots): against T-cell receptors.
A61B 51/10B28L2 (8 dots): against T-cell receptor (TcR)-CD3 complex.
A61K 51/1045 (6 dots): against animal/human tumor cells or tumor cell determinants .
A61K 51/1048 (7 dots): the tumor cell determinant is a carcino embryonic antigen.
A61K 51/1051 (7 dots): the tumor cell is from breast, (the antibody being e.g. herceptin).

A61K 51/1054 (7 dots): the tumor cell is from lung.
A61K 51/1057 (7 dots): the tumour cell is from liver or pancreas.
A61K 51/106(7 dots): the tumor cell is from kidney, bladder
A61K 51/1063(7 dots): the tumor cell is from stomach or intestines
A61K 51/1066 (7 dots): the tumor cell is from skin
A61K 51/1069 (7 dots): the tumor cell is from blood cells, (the cancer being e.g. a myeloma).
A61K 51/1072 (7 dots): the tumor cell being from the reproductive system, e.g. ovaria, uterus, testes, prostate
A61K 51/1075 (6 dots): the antibody is against an enzyme
A61K 51/1078 (6 dots): the antibody is against an immunoglobulin, i.e. is an (anti)-anti-idiotypic antibody
A61K 51/1081 (6 dots): the antibody is against a material not provided elsewhere.
A61K 51/1084 (6 dots): the antibody is a hybrid immunoglobulin.
A61K 51/1087 (7 dots): the immunoglobulin comprises domains from different animal species, e.g. chimeric immunoglobulins.
A61K 51/109 (7 dots): immunoglobulins having two or more different antigen-binding sites, multifunctional antibodies.

A61K 51/1093 (5 dots): conjugates with carriers being antibodies. The compound which bears/complexes/chelates the radioactive nucleus, is covalently linked/complexed to the carrier being an antibody Classification is also made according to the appropriate A61K 51/1003 subclass.In case of a conjugate comprising a complex-forming compound (chelating group) complexing a radioactive metal linked to the carrier (antibody in A61K 51/1093), the nature of this complex-forming compound is not classified except if it is the real contribution of the claimed invention and it is an uncommon complexing/chelating group, e.g. 111In-DTPA-herceptin is classified in A61K 51/1093 and A61K 51/1051, new DTPA-like derivatives conjugated to herceptin and complexing 111In for use in vivo is classified in A61K 51/0478 + A61K 51/1093 + A61K 51/1051.
A61K 51/1096 (6 dots): conjugates being structurally as defined in A61K 51/1093, and including a radioactive nucleus for use in radiotherapeutic applications (radioimmunotoxins).
A61K 51/12 (1 dot): characterized by a special physical form, e.g. emulsions, dispersions, microcapsules
A61K 51/1203 (2 dots): in a form not provided for by groups A61K 51/1206 to A61K 51/1296, e.g. cells, cell fragments, viruses, virus capsides, ghosts, red blood cells, viral vectors.
A61K 51/1206 (2 dots): administration of radioactive gases, aerosols or breath tests.
A61K 51/121 (2 dots): solutions, i.e.

homogeneous liquid formulation.
A61K 51/1213 (2 dots): semi-solid forms, gels, hydrogels, ointments, fats and waxes that are solid at room temperature.
A61K 51/1217 (2 dots): dispersions, suspensions, colloids, emulsions (e.g. perfluorinated emulsion), sols.
A61K 51/122 (3 dots): micro-emulsions, nano-emulsion
A61K 51/1224 (3 dots): lipoprotein vesicles, e.g. HDL and LDL proteins
A61K 51/1227 (3 dots): micelles, e.g. phospholipidic or polymeric micelles
A61K 51/1231 (3 dots) : liposomes Liposomes modified on their external surface by a targeting agent, e.g. an antibody, are not additionally classified with the symbol of the targeting agent.
A61K 51/12E8A (4 dots): polymersomes, i.e. liposomes with polymerisable or polymerized bilayer-forming substances.
A61K 51/1241 (2 dots): particles, powders, lyophilizates, adsorbates (e.g. polymers or resins for adsorption or ion-exchange resins).
A61K 51/1244 (3 dots): micro-particles or nano-particles, e.g. polymeric nanoparticles.
A61K 51/1248 (4 dots): nanotubes.
A61K 51/1251 (4 dots): micro/nano-spheres, micro/nano-beads, micro/nano-capsules.

A61K 51/1258 (2 dots): pills, tablets, lozenges.
A61K 51/1268 (2 dots): host-guest, closed hollow molecules, inclusion complexes (e.g. with cyclodextrins), clathrates, cavitates, fullerenes.
A61K 51/1272 (2 dots): sponges.
A61K 51/1275 (2 dots): fibers, textiles, slabbs, or sheets.
A61K 51/1279 (2 dots): plasters, bandages, dressings, patches or adhesives.
A61K 51/1282 (2 dots): devices used in vivo and carrying the radioactive therapeutic/diagnostic agent, therapeutic/in vivo diagnostic kits, stents.
A61K 51/1286 (3 dots): ampoules, glass carriers carrying the thereapeutic/ in vivo diagnostic agent
A61K 51/1289 (3 dots): devices or containers for impregnation, for emanation, e.g. bottles or jars for radioactive water for use in radiotherapy.
A61K 51/1293 (2 dots): radioactive cosmetics, e.g. radioactive bathsalts, soaps
A61K 51/1296 (2 dots): radioactive food, e.g. chocolates, drinks

Relationship between large subject matter areas

Galenical aspects of pharmaceutical compositions: if this is an important aspect of the invention, it may also be classified in A61K 9/00 and/or A61K 47/00 to A61K 47/46.

Preparations for testing in vitro or ex vivo are classified in G01N or C12Q, depending on the techniques used.

Radioactive compounds that are new are also classified in C07B 59/00.

References relevant to classification in this group

This subclass/group does not cover:

The use of preparations containing a radioactive substance or a substance that bears a radioactive label, used for diagnosis ex vivo, or used for diagnosis/testing in vitro. Therefore, the use in testing in bacteria on e.g. a Petri dish is excluded.	G01N
The use in vivo of substances containing a non-radioactive isotope, like deuterium or 13C.	A61K 31/00 to A61K 48/00
The active ingredients in pharmaceutical compositions which do not contain radioactive substances	A61K 31/00 to A61K 48/00
Preparations for testing in vivo using non-radioactive substances	A61K 49/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Labelling of peptides	C07K 1/13
Introduction of isotopes of elements into organic compounds	C07B 59/00

Special rules of classification within this group

Classified are concrete, well-defined compositions disclosed in the examples or in the claims. Thus, radioactive isotopes mentioned only in the description as being possibly linked to an active agent are not classified here.

The classification is made according to the carrier which is covalently linked, or complexed to the radionuclide, and according to the galenical aspect(s) or physical form(s).

The classification of conjugates in which the carrier is an antibody, the classification of the characterising antibody follows a classification similar to that of new antibodies, C07K 16/00 and subgroups, although less detailed. For the specificity of the antibody, the same rules are followed as for the classification in C07K 16/00.

If the radionuclide is complexed using a chelating group, the classification according to this chelating group is only made in two cases:

- if the chelating group is an uncommon agent, that is the real contribution of the claimed invention, or

- if it is the carrier as such.

If a common chelating group is linked/conjugated to another carrier (e.g., a targeting group, a peptide, or an active agent), classification takes place according to this other carrier, and not according to the common chelating group.

Synonyms and Keywords

In patent documents the following abbreviations are often used:

PET	Positron Emission Tomography
SPECT	Single Photon Emission Computed Tomography