

BASE DE DATOS QUÍMICA DE LA ROYAL SOCIETY OF CHEMISTRY

About

More Searches

Web APIs

Help

eg. Pyridine

Search

Search




Search

Simple Structure Advanced More searches...

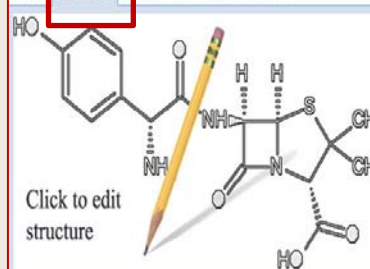
Systematic Name, Synonym, Trade Name, Registry Number, SMILES, InChI or CSID ?

Options

 Search

Search

Simple Structure Advanced More searches...



- Exact
- Substructure
- Similarity

Search Options

- Exact Match
- All Tautomers
- Same Skeleton (Including H)
- Same Skeleton (Excluding H)
- All Isomers

Options

 Search Clear form

Search Hits Limit: 100

Simple Structure Advanced More searches...

- Search by Structure ?
- Search by Identifier ?
- Search by Elements ?
- Search by Properties ?
- Search by Calculated Properties ?
- Search by Data Source, Data Source Type or Focused Library ?
- Search by LASSO Similarity ?

Options

 Search Clear form


Search Hits Limit: 100

Search

Simple Structure Advanced More searches...

- Search by Structure ?
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- Search by Data Source, Data Source Type or Focused Library ?
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Options

 Search Clear form

Search Hits Limit: 100

BÚSQUEDA SIMPLE DE UN COMPUESTO

BÚSQUEDA

SIMPLE

RSC SyntheticPages Login Register

 **ChemSpider**
The free chemical database

About More Searches Web APIs Help

Búsqueda simple por "colesterol"

Search

Simple Structure Advanced More searches...


cholestel
Cholesteryl
cholesteryl linoleate
Cholesteryl linolenate
Cholesteryl palmitoleate
cholestene-3,24,27-triol
Cholestenediol
cholestenetriol
Cholestenone
Cholesteryl butyrate
Cholesterin
Cholesterin acetate
Cholesterin ethyl ether
Cholesterin methyl ether
Cholesterol
Cholesterol 3beta-oleate
cholesterol 3-sulfate
Cholesterol 3-tosylate
Cholesterol Acetate

Search Hits Limit: 100

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 **ChemSpider**
The free chemical database

About More Searches Web APIs Help

eg. Pyridine Search

Search

Simple Structure Advanced More searches...

Cholesterol
Systematic Name, Synonym, Trade Name, Registry Number, SMILES, InChI or CSID

Options

Search

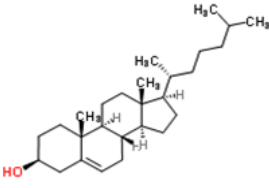
Search Hits Limit: 100

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LEARN MORE

Search term: Cholesterol (Found by approved synonym)

Cholesterol



2D 3D Save Zoom

- 8 of 8 defined stereocentres

ChemSpider ID: **5775**

Molecular Formula: C₂₇H₄₆O

Monoisotopic mass: 386.354858 Da

Systematic name
(3β)-Cholest-5-en-3-ol

SMILES and InChI

SMILES:
C[C@H](CCCC(C)C)[C@H]1CC[C@@H]2[C@@]1(CC[C@H]3[C@H]2CC=C4[C@@]3(CC[C@@H](C4)O)C)C [Copy](#)

Std. InChI:
InChI=1S/C27H46O/c1-18(2)7-6-8-19(3)23-11-12-24-22-10-9-20-17-21(22)13-15-26(20,1)25(22)14-16-27(23,24)5/h9,18-19,21-25,28H,6-8,10,11,12,13,14,16,17,20,22,23,24,25+,26+,27-/m1/s1 [Copy](#)

AQBDFISA-N [Copy](#)

Want to comment on this record?

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Posibilidad de realizar comentarios, correcciones, información, etc. sobre este compuesto.

Datos básicos de la estructura (fórmula, masa, nombre) , descargar, zoom, vista en 3D, códigos.

Names and Identifiers Print

Names and Synonyms Database ID(s)

Validated by Experts, Validated by Users, Non-Validated by Users, Redirected by Users, Redirect Approved by Experts Edit

(-)-Cholesterol

(3b)-cholest-5-en-3-ol

(3S,8S,9S,10R,13R,14S,17R)-10,13-Dimethyl-17-[(1R,2R,4R,8R,13R,17R)-10,13-dimethyl-5-oxo-Δ^{1,2}-steroid-3-yl]heptacosahydro-1H-cyclopenta[a]phenanthren-3-ol

(3S,8S,9S,10R,13R,14S,17R)-10,13-Diméthyl-17-[(1R,2R,4R,8R,13R,17R)-10,13-diméthyl-5-oxo-Δ^{1,2}-steroid-3-yl]hépcahydro-1H-cyclopenta[a]phénanthrén-3-ol [French]

(3β)-cholest-5-en-3-ol [ACD/IUPAC Name]

(3β)-Cholest-5-én-3-ol [French]

3b-Hydroxy-5-cholestene

3β-Hydroxycholest-5-ene

5:6-Cholesten-3b-ol

5:6-Cholesten-3β-ol

[More...](#)

ChemSpider Searches ?

Search ChemSpider for:

- Records with the same molecular formula
- Compounds with the same skeleton
- Use this molecule in a structure search

Search external sites for this structure:

- Search Google Scholar (by synonym)
- Search Google for exact structure
- Search Google for structures with same skeleton

Otros nombres e IDs relacionadas con la estructura.

Búsquedas a medida para realizar búsquedas avanzadas tanto en ChemSpider como en otros sitios externos a la base de datos.

Properties ? Print

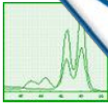
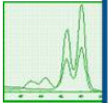
Experimental data | Predicted - ACD/Labs | Predicted - EPISuite | Predicted - ChemAxon

data supplied by datasources and users.

- Experimental Physchem Properties**
 - Melting Point: 149 ? 🔗
 - Melting Point: 147-150? ? 🔗
 - Melting Point: 147-150? ? 🔗
 - Melting Point: 147-150 ? 🔗
 - Melting Point: 148 - 150 C ? 🔗
 - Boiling Point: 360? ? 🔗
 - Boiling Point: 360? ? 🔗
 - Boiling Point: 360 ? 🔗
 - Boiling Point: 360 C ? 🔗
 - Flash Point: White powder ? 🔗
 - Flash Point: White powder ? 🔗
 - Specific Gravity: 1.067 ? 🔗
 - Specific Gravity: 1.067 ? 🔗
 - Optical Rotation: -36 (c=2 in dioxane) ? 🔗
 - Optical Rotation: -36 (c=2 in dioxane) ? 🔗
 - Optical Rotation: -36 (c=2 in dioxane) ? 🔗
- Miscellaneous**
 - Appearance: Cholesterol, 95% ? 🔗
 - Appearance: Cholesterol, 95% ? 🔗
 - Appearance: white crystalline powder ? 🔗
 - Stability: Stable. Combustible. Incompatible with strong oxidizing agents. ? 🔗
 - Safety: WARNING: Not for human consumption, may irritate skin & eyes. ? 🔗
 - Safety: WARNING: Not for human consumption, may irritate skin & eyes. ? 🔗
 - Safety: WARNING: Not sold for human treatment, trials or use ? 🔗
 - Safety: Apparently of low toxicity. Use normal good housekeeping measures. ? 🔗

Información sobre datos de propiedades tanto teóricas como experimentales.

Spectra ? Add

- Type:** CNMR
Approved: Yes
Submitted by: ChemSpiderman
-  Download
- Type:** HNMR
Approved: Yes
Submitted by: ChemSpiderman
-  Download
- Type:** HNMR
Associated Hyperlink: <http://rainier.chem.plu.edu/nutsform.html>
Comments: These data are obtained from the Pacific Lutheran University FTNMR FID Archive

Espectros interactivos (NMR, MS, IR, UV-Vis) que pueden estar asociados a publicaciones o a webs de grupos de investigación

Articles ? Print

Links & Reference ? RSC Journals RSC Books PubMed MeSH Literature Google Books

- H.-S. Shieh and C. E. Nordman. Cholesterol hemimethanol solvate, *Acta Cryst.* (2002). *E58*, o79-o80Å Å Å Å
[DOI: 10.1107/S1600536801020487]
- Bosco et al.. Elevated levels of oxidized cholesterol metabolites in Lewy body disease brains accelerate alpha-synuclein fibrilization, *Nature Chemical Biology*, 2006
[DOI: 10.1038/nchembio782]
- Polozov et al.. Progressive Ordering with Decreasing Temperature of the Phospholipids of Influenza Virus, *Nature Chemical Biology*, 2008
[DOI: 10.1038/nchembio.77]
- Meloni et al.. Metal swap between Zn7-metallothionein-3 and beta Cu protects against amyloid-beta toxicity, *Nature Chemical Biology*, 2008
[DOI: 10.1038/nchembio.89]
- Gerlach et al.. HIV-1 Nef membrane association depends on membrane lipid composition and sequence, *Nature Chemical Biology*, 2009
[DOI: 10.1038/nchembio.268]
- Tobias Kind, Martin Scholz, Oliver Fiehn. How Large is the Metabolome of a Species? *PLoS ONE* 4(5): e5440
[DOI: 10.1371/journal.pone.0005440]
Calculating the metabolome size of species by using metabolite databases could be queried to compile target lists for metabolite discovery. Hence, metabolomes databases could be queried to compile target lists for metabolite discovery. Hence, metabolomes databases could be queried to compile target lists for metabolite discovery. Hence, metabolomes databases could be queried to compile target lists for metabolite discovery.
- Mével Mathieu. Novel neutral imidazole-lipophospholipids, *PLoS ONE* 4(5): e5440
[DOI: 10.1039/b805226c]
- Aparicio Jesús F.. Microbial cholesterol oxidases: bioconversion enzymes or signal proteins?, *Molecular BioSystems*, 2008
[DOI: 10.1039/b717500k]
- Numata Munenori. Creation of polynucleotide-assisted molecular assemblies in organic solvents: general strategy toward the creation of artificial DNA-like nanoarchitectures, *Organic & Biomolecular Chemistry*, 2008
[DOI: 10.1039/b713354e]

Publicaciones relacionadas con el compuesto de búsquedas, en este caso, colesterol.

Chemical Vendors ? Print

Data Source	External ID(s)
R&D Chemicals ?	3551
Aronis ?	BBC/344
Trylead Chemical ?	TL8003721
Sigma-Aldrich ?	S5442_SIGMA, C3292_SIGMA, C1231_SIGMA, C3137_SIGMA, C3045_SIGMA, C8503_SIGMA, C8667_SIGMA, 47127U_SUPELCO, 26740_FLUKA, 26732_FLUKA
Alfa Aesar ?	A11470
Timtec ?	SBB058670
Extrasynthese ?	3551, 3506
Pharmten ?	S-PTN26633
Molport ?	MolPort-002-506-911
Zerenex Molecular ?	ZXN000114, ZX-AS001340
Research Organics ?	RES1387C-A102X, RES1387C-A103X
Santa Cruz Biotechnology ?	sc-202539
Tokyo Chemical Industry Ltd ?	C0318
Finetech Industry ?	FT-57-88-5
InterBioScreen ?	BB_NC-0135, STOCK1N-54186
Fluorochem ?	121530
Paragos ?	490008
ABI Chemicals, GmbH ?	AC1Q1PAZ

Información sobre si el compuesto está disponible comercialmente y posibilidad de conectar con la web del vendedor.

Data Sources Print Filter

[Chemical Vendors](#)
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[Theor. Data](#)
[Tox/Envir. Data](#)
[Personal Data](#)
[Publication](#)
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[Web Article](#)
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[Xtal Structures](#)
[Natural Products](#)
[Spectral Data](#)
[Data Aggregators](#)
[Safety Data](#)
[All Data Sources](#)

Data Source	External ID(s)
R&D Chemicals	3551
Aronis	BBC/344
Trylead Chemical	TL8003721
Sigma-Aldrich	S5442_SIGMA, C329... 47127U_SUPELCO, ... A11470
Alfa Aesar	
Timtec	SBB058670
Extrasynthese	3551, 3506
Pharmten	S-PTN26633
Molport	MolPort-002-506-911 ZYN000114_ZY_AS001340

Enlaces con todas las fuentes que han contribuido a la información sobre este registro, agrupadas por materias.

Wikipedia Article(s) Print License

Cholesterol, from the Greek *chole-* (bile) and *stereos* (solid) followed by the chemical suffix *-ol* for an alcohol, is an organic chemical substance classified as a waxy steroid of fat. It is an important structural component of mammalian cell membranes and is required to establish proper membrane permeability and fluidity. In addition, it is a precursor in the hormonal systems of the body for the manufacture of bile acids, steroid hormones, and vitamin D. It is synthesized by animals; in vertebrates it is formed predominantly in the liver. Small amounts are also found in plants and fungi. It is almost completely absent among prokaryotes, i.e. bacteria and archaea. High levels of cholesterol in the blood have been linked to damage to arteries.

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[USPTO Applications](#)
[European Granted](#)
[European Applications](#)
[WO/PCT](#)
[Japanese Abstracts](#)

[Mammalian pancreatic cholesterol esterase](#)
Patente estadounidense 5981 MAMMALIAN PANCREATIC CHOLESTEROL ESTERASE
now US Pat. No. 5,981,111
of application Ser. No. 08/461881, filed Jun. 5, 1995.

[Mammalian pancreatic cholesterol esterase](#)

Enlaces a los artículos de Wikipedia

Visión general sobre patentes

RSC Databases

- Description
- Medical Subject Headings Classification
- Pharmacological Links

Resto de información disponible, que podemos extender o comprimir situándonos sobre la flecha.

BÚSQUEDA POR ESTRUCTURA

(EDITOR DE DIBUJO)

Búsqueda por estructura

eg. Pyridine Search

Search

Simple Structure Advanced More searches...

Click to edit structure

Options

Search Hits Limit: 100

Exact
 Substructure
 Similarity

Search Options
 Exact Match
 All Tautomers
 Same Skeleton (Including H)
 Same Skeleton (Excluding H)
 All Isomers

Opciones de búsqueda

ChemSpider | Input Chemical Structure - Windows Internet Explorer

http://www.chemspide.com/controls/DrawMolecule/EditMolecule.aspx?ID=SearchMolecule

Draw structure Load structure Convert identifier to structure

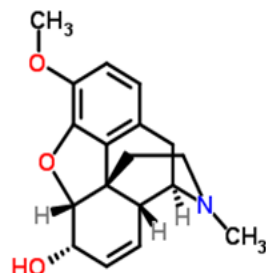
Accelrys JDraw
 Elemental
 ACD/Labs SDA
 Ketcher
 JME
 JChemPaint

Clean Molecule Accept Cancel

Otras opciones de editar la estructura sin dibujarla

Se puede elegir entre distintos editores de dibujo

Con las distintas herramientas del editor dibujamos la molécula, la codeína.



2D 3D Save Zoom

- 5 of 5 defined stereocentres

Codeine

ChemSpider ID: **4447447**

Molecular Formula: C₁₈H₂₁NO₃

Monoisotopic mass: 299.15213 Da

Systematic name

(5 α ,6 α)-3-Methoxy-17-methyl-7,8-didehydro-4,5-epoxymorphinan-6-ol

SMILES and InChIs

Want to comment
on this record?

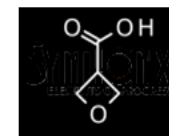
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Search term: SEARCH_BY_MOLECULE Exact (Finished)



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A partir de aquí, los pasos para ver la información son los mismos que los realizados en la "búsqueda simple".

Print

Names and Identifiers

Names and Synonyms Database ID(s)

Validated by Experts, Validated by Users, Non-Validated, Removed by Users, Redirected by Users, Redirect Approved by Experts

Edit

Codeine [Wiki] [USP] [INN] [BAN]

(-)-codeine

(1S,5R,13R,14S,17R)-10-Methoxy-4-methyl-12-oxa-4-azapentacyclo[9.6.1.0^{1,13}.0^{5,17}.0^{7,18}]octadeca-7(18),8,10,15-tetraen-14-ol

(1S,5R,13R,14S,17R)-10-méthoxy-4-méthyl-12-oxa-4-azapentacyclo[9.6.1.0^{1,13}.0^{5,17}.0^{7,18}]octadéca-7(18),8,10,15-tétraén-14-ol

(5 α ,6 α)-7,8-Didehydro-4,5-epoxy-3-methoxy-17-methylmorphinan-6-ol

(5 α ,6 α)-3-Methoxy-17-methyl-7,8-didehydro-4,5-epoxymorphinan-6-ol [ACD/IUPAC Name]

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<http://www.youtube.com/user/890quibuc>