

Product Name: 25-Hydroxycholesterol

Catalog No.: 5741

Batch No.: 3

CAS Number: 2140-46-7

IUPAC Name: Cholest-5-ene-3 β ,25-diol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₇H₄₆O₂·½H₂O

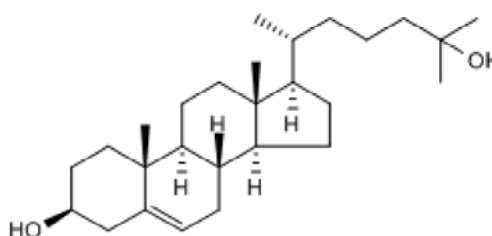
Batch Molecular Weight: 411.66

Physical Appearance: White solid

Solubility: ethanol to 20 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	78.78	11.51	
Found	79.05	11.52	

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Batch No.: 3

CAS Number: 2140-46-7

IUPAC Name: Cholest-5-ene-3 β ,25-diol

Description:

Antiviral. Stimulates expression of miR-185 microRNA which inhibits the hepatitis C virus life cycle via inhibition of cholesterol biosynthesis and virus cell membrane fusion. Also α -crystallin (cryAB) chaperone ($K_d = 10.1 \mu\text{M}$). Blocks α -crystallin aggregation and partially reverses cataract formation by binding and stabilizing soluble forms of cryAB in vitro and in vivo.

Physical and Chemical Properties:

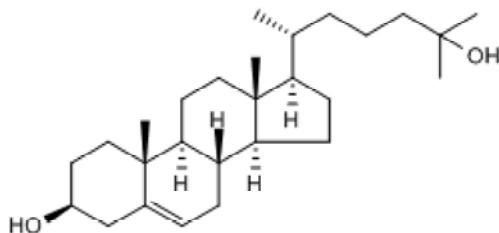
Batch Molecular Formula: $\text{C}_{27}\text{H}_{46}\text{O}_2 \cdot \frac{1}{2}\text{H}_2\text{O}$

Batch Molecular Weight: 411.66

Physical Appearance: White solid

Minimum Purity: $\geq 95\%$

Batch Molecular Structure:



References:

Makley *et al* (2015) Pharmacological chaperone for alpha-crystallin partially restores transparency in cataract models. *Science* **350** 674. PMID: 26542570 .

Singaravelu *et al* (2015) MicroRNAs regulate the immunometabolic response to viral infection in the liver. *Nat.Chem.Biol.* **11** 988. PMID: 26479438.

Storage: Store at -20°C

Solubility & Usage Info:

ethanol to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a $45\text{-}60^\circ\text{C}$ water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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