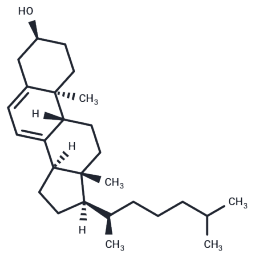
Data Sheet (Cat.No.T40601)

TargetMol

Lumisterol 3

Chemical Properties



CAS No. : 5226-01-7

Formula: C27H44O

Molecular Weight: 384.65

Storage: Keep away from direct sunlight
Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Lumisterol 3 (9β,10α-Cholesta-5,7-dien-3β-ol) is a sterol metabolite and a photosensitised isomer derivative of vitamin D3. It activates Nrf2 and p53 and protects keratinocytes from UVB-induced damage.
Targets(IC50)	Nrf2,Endogenous Metabolite,p53
In vitro	**Methods**: HEKn cells were treated with Lumisterol 3 (1,100 nM, 24 h), and intracellular reactive oxygen species (ROS) formation was detected using the DCFDA method. **Results**: Lumisterol 3(100 nM) significantly reduced UVB-induced oxidative stress formation.[2]

Solubility Information

Solubility	DMSO: 1.5 mg/mL (3.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5998 mL	12.9988 mL	25.9977 mL
5 mM	0.520 mL	2.5998 mL	5.1995 mL
10 mM	0.260 mL	1.2999 mL	2.5998 mL
50 mM	0.052 mL	0.260 mL	0.520 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Slominski AT, Li W, Kim TK, et al. Novel activities of CYP11A1 and their potential physiological significance. J Steroid Biochem Mol Biol. 2015;151:25-37.

Anyamanee Chaiprasongsuk, et al. Protective effects of novel derivatives of vitamin D3 and lumisterol against UVB-induced damage in human keratinocytes involve activation of Nrf2 and p53 defense mechanisms. Redox Biol. 2019 Jun;24:101206.