7-Dehydrocholesterol

Cat. No.: HY-113279

CAS No.: 434-16-2

Molecular Formula: $C_{27}H_{44}O$

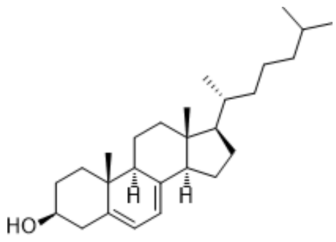
Molecular Weight: 384.64

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 16.67 mg/mL (43.34 mM; Need ultrasonic)

DMSO : < 1 mg/mL (insoluble or slightly soluble)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5998 mL	12.9992 mL	25.9983 mL
	5 mM	0.5200 mL	2.5998 mL	5.1997 mL
	10 mM	0.2600 mL	1.2999 mL	2.5998 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 0.83 mg/mL (2.16 mM); Clear solution
2. Add each solvent one by one: 10% EtOH >> 90% corn oil
   Solubility: ≥ 0.83 mg/mL (2.16 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

7-Dehydrocholesterol is biosynthetic precursor of cholesterol and vitamin D_3.

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

7-Dehydrocholesterol is a biosynthetic precursor of cholesterol and vitamin D_3. 7-Dehydrocholesterol is present in relatively high concentration in skin where it is converted to pre-vitamin D_3 upon UV irradiation and where it is also exposed to exogenous radical sources and oxygen[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Research Square Preprint. 2023 Jun 22.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Xu L, et al. Oxysterols from free radical chain oxidation of 7-dehydrocholesterol: product and mechanistic studies. J Am Chem Soc. 2010 Feb 24;132(7):2222-32.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA