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Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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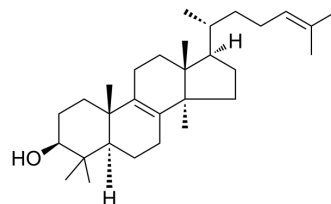
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Lanosterol

Cat. No.:	HY-W020033		
CAS No.:	79-63-0		
Molecular Formula:	C ₃₀ H ₅₀ O		
Molecular Weight:	426.72		
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

DMSO : 5 mg/mL (11.72 mM; Need ultrasonic)
 Ethanol : 3.57 mg/mL (8.37 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.3435 mL	11.7173 mL	23.4346 mL
	5 mM	0.4687 mL	2.3435 mL	4.6869 mL
	10 mM	0.2343 mL	1.1717 mL	2.3435 mL

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

In Vivo

- Add each solvent one by one: 10% EtOH >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 1 mg/mL (2.34 mM); Clear solution
- Add each solvent one by one: 10% EtOH >> 90% corn oil
 Solubility: ≥ 1 mg/mL (2.34 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Lanosterol is an intermediate of cholesterol synthesis and use of lanosterol induces ubiquitination and degradation of a rate-controlling enzyme of cholesterol synthesis, i.e., HMG CoA reductase. Lanosterol suppresses the aggregation and cytotoxicity of misfolded proteins linked with neurodegenerative diseases^{[1][2]}.

IC₅₀ & Target

Human Endogenous Metabolite

In Vitro

Lanosterol diminishes aberrant proteotoxic aggregation and mitigates their cytotoxicity via induced expression of co-chaperone CHIP and elevated autophagy^[1].
 Lanosterol is a precursor of meiosis-activating sterols in the cholesterol biosynthetic pathway and induces a physiological signal that instructs the oocyte to reinitiate meiosis^[2].

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

CUSTOMER VALIDATION

- Cell Death Dis. 2023 Nov 14;14(11):740.
- Cell Chem Biol. 2024 May 16;31(5):920-931.e6.
- Commun Biol. 2023 Jan 3;6(1):1.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Upadhyay A, et al. Lanosterol Suppresses the Aggregation and Cytotoxicity of Misfolded Proteins Linked with Neurodegenerative Diseases. Mol Neurobiol. 2018;55(2):1169-1182.

[2]. Lee S, et al. Lanosterol influences cytoplasmic maturation of pig oocytes in vitro and improves preimplantation development of cloned embryos. Theriogenology. 2016;85(4):575-584.

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

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