Erythrodiol

Cat. No.: HY-N2419

CAS No.: 545-48-2

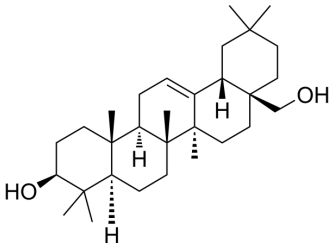
Molecular Formula: $C_{30}H_{50}O_2$

Molecular Weight: 442.72

Target: Endogenous Metabolite

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (45.18 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2588 mL	11.2938 mL	22.5876 mL
	5 mM	0.4518 mL	2.2588 mL	4.5175 mL
	10 mM	0.2259 mL	1.1294 mL	2.2588 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2 mg/mL (4.52 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2 mg/mL (4.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Erythrodiol is an olive oil component. Erythrodiol promotes Cholesterol efflux (ChE) by selectively inhibiting the degradation of ABCA1 protein. Erythrodiol is a good candidate to be further explored for therapeutic or preventive application in the context of atherosclerosis[1].

IC_{50} & Target

ABCA1 protein[1]

In Vitro

Erythrodiol (1-15 μM; 24 hours) enhances ABCA1 protein level in a concentration-dependent manner, and reachs significance at 10 and 15 μM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	THP-1 macrophage cells
Concentration:	1 μM, 2.5 μM, 5 μM, 10 μM, and 15 μM
Incubation Time:	24 hours
Result:	Increased ABCA1 protein expression.

REFERENCES

[1]. Wang L, et al. Erythrodiol, an Olive Oil Constituent, Increases the Half-Life of ABCA1 and Enhances Cholesterol Efflux from THP-1-Derived Macrophages. Front Pharmacol. 2017 Jun 13;8:375.

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