Ecamsule

Cat. No.: HY-16182

CAS No.: 92761-26-7

Molecular Formula: $C_{28}H_{34}O_8S_2$

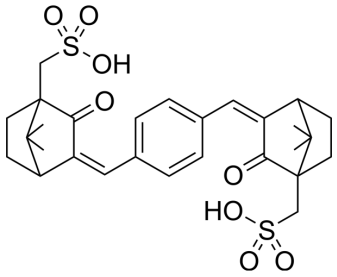
Molecular Weight: 562.69

Target: Biochemical Assay Reagents

Pathway: Others

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 50 mg/mL (88.86 mM; Need ultrasonic)
Methanol : 31.25 mg/mL (55.54 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7772 mL	8.8859 mL	17.7718 mL
5 mM	0.3554 mL	1.7772 mL	3.5544 mL
10 mM	0.1777 mL	0.8886 mL	1.7772 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: ≥ 2.5 mg/mL (4.44 mM); Clear solution
2. Add each solvent one by one: 10% EtOH >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.44 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ecamsule is a broad-spectrum UVA filter that can be used in sunscreen product. Ecamsule reduces biological damage caused by solar radiation such as pyrimidine dimer formation, p53 protein accumula-tion, or collagenase 2 expression. Ecamsule has the potential for the research of polymorphous light eruption (PMLE) [1] [2].

In Vitro

Ecamsule is a broad-spectrum UVA-absorber with maximum absorbance at 344 nm[1].
Wild-type Fibs E6/E7 cells are more sensitive towards Ecamsule (200-1600 μM) treatment[1].
. Ecamsule counteractes UV and AAPH induced ROS-formation[1].
.The effects are dose-dependent, reaching a maxi-mum ROS reduction by 25.7% at the highest tested concentration of 1600 μM in the UV-setting. With the same concentration of Ecamsule, oxidative stress that had been trigged by AAPH is reduced

by 10.8% and basal levels are attenuated by 16.9%[1].
. Ecamsule increases the viability at the highest applied concentration of 1600 μM in the AAPH-treated cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Stefanie Hofer, et al. Contradictory effects of chemical filters in UV/ROS-stressed human keratinocyte and fibroblast cells. ALTEX. 2019;36(2):231-244.

[2]. DeLeo VA, et al. A new ecamsule-containing SPF 40 sunscreen cream for the prevention of polymorphous light eruption: a double-blind, randomized, controlled study in maximized outdoor conditions. Cutis. 2009 Feb;83(2):95-103.

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