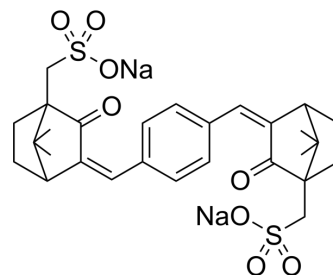


Ecamsule disodium

Cat. No.:	HY-16182A
CAS No.:	90458-75-6
Molecular Formula:	C ₂₈ H ₃₂ Na ₂ O ₈ S ₂
Molecular Weight:	606.66
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H₂O : 50 mg/mL (82.42 mM); ultrasonic and warming and heat to 60°C
DMSO : 50 mg/mL (82.42 mM); Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.6484 mL	8.2418 mL	16.4837 mL
	5 mM	0.3297 mL	1.6484 mL	3.2967 mL
	10 mM	0.1648 mL	0.8242 mL	1.6484 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (4.12 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (4.12 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (4.12 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ecamsule disodium 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 accumulation, or collagenase 2 expression^{[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 counteracts UV and AAPH induced ROS-formation^[1]. The effects are dose-dependent, reaching a maximum 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 triggered 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]. Vincent A DeLeo, 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.

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

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