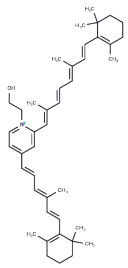
Data Sheet (Cat.No.T74051)

TargetMol

Pyridinium bisretinoid A2E

Chemical Properties



CAS No. : 173449-96-2

Formula: C42H58NO

Molecular Weight: 592.92

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Pyridinium bisretinoid A2E (A2E) is a fluorescent chromophore isolated from lipofuscin in retinal pigment epithelium, a lipophilic cation and weak photosensitizer with cytotoxicity. A2E promotes apoptosis under blue light exposure and induces autophagy under photoactivation, damaging membrane integrity in a concentration-dependent manner.
Targets(IC50)	Apoptosis,Reactive Oxygen Species,Autophagy,ROS,Photosensitizer

Solubility Information

Solubility	DMSO: 120 mg/mL (202.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6866 mL	8.4328 mL	16.8657 mL
5 mM	0.3373 mL	1.6866 mL	3.3731 mL
10 mM	0.1687 mL	0.8433 mL	1.6866 mL
50 mM	0.0337 mL	0.1687 mL	0.3373 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Arunkumar R, et al. Macular Pigment Carotenoids and Bisretinoid A2E. Adv Exp Med Biol. 2023;1415:15-20.
Wu Y, et al. Structural characterization of bisretinoid A2E photocleavage products and implications for age-related macular degeneration. Proc Natl Acad Sci U S A. 2010 Apr 20;107(16):7275-80.

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