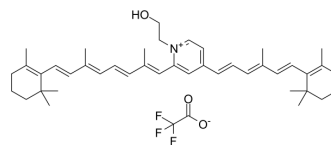


Pyridinium bisretinoid A2E TFA

Cat. No.:	HY-134928A
CAS No.:	1821308-73-9
Molecular Formula:	C ₄₄ H ₅₈ F ₃ NO ₃
Molecular Weight:	705.93
Target:	Apoptosis; Autophagy; Reactive Oxygen Species
Pathway:	Apoptosis; Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κ B
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 : 100 mg/mL (141.66 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.4166 mL	7.0829 mL	14.1657 mL
5 mM	0.2833 mL	1.4166 mL	2.8331 mL
10 mM	0.1417 mL	0.7083 mL	1.4166 mL

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

BIOLOGICAL ACTIVITY

Description

Pyridinium bisretinoid A2E (A2E) TFA is a fluorophore that can be isolated from lipofuscin in the retinal pigment epithelium (RPE). Pyridinium bisretinoid A2E TFA is an initiator of blue-light-induced apoptosis. Photoactivation of Pyridinium bisretinoid A2E TFA mediates autophagy and the production of reactive oxygen species. Pyridinium bisretinoid A2E TFA can be used in the study of retinal degenerative diseases^{[1][2]}.

In Vitro

Exposure of Pyridinium bisretinoid A2E (A2E) to light triggers its conversion into at least two products. One of these is epoxy-A2E, which is hydrophilic and can be transferred from the membrane to an aqueous solution. The other product is an unidentified hydrophobic substance^[3].

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

REFERENCES

[1]. Jeong SY, et al. Photoactivation of N-retinylidene-N-retinylethanolamine compromises autophagy in retinal pigmented epithelial cells. Food Chem Toxicol. 2019 Sep;131:110555.

[2]. S. Ben-Shabat, et al; Elucidating the Role of Pyridinium bis-Retinoid(A2E) in Retinal Pigment Epithelium (RPE) Cell Damages. Invest. Ophthalmol. Vis. Sci. 2007;48(13):2201.

[3]. Sokolov VS, et al. Interaction of pyridinium bis-retinoid (A2E) with bilayer lipid membranes. J Photochem Photobiol B. 2007 Feb 1;86(2):177-85.

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

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