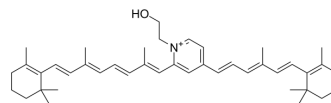


Pyridinium bisretinoid A2E

Cat. No.:	HY-134928
CAS No.:	173449-96-2
Molecular Formula:	C ₄₂ H ₅₈ NO ⁺
Molecular Weight:	592.92
Target:	Apoptosis; Autophagy; Reactive Oxygen Species
Pathway:	Apoptosis; Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κ B
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 150 mg/mL (252.99 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
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

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

BIOLOGICAL ACTIVITY

Description

Pyridinium bisretinoid A2E (A2E) is a fluorophore that can be isolated from lipofuscin in the retinal pigment epithelium (RPE). Pyridinium bisretinoid A2E is an initiator of blue-light-induced apoptosis. Photoactivation of Pyridinium bisretinoid A2E mediates autophagy and the production of reactive oxygen species. Pyridinium bisretinoid A2E 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.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA