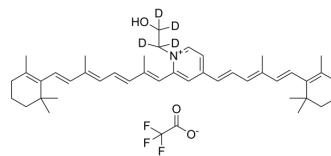


Pyridinium bisretinoid A2E-d₄ TFA

Cat. No.:	HY-134928AS
Molecular Formula:	C ₄₄ H ₅₄ D ₄ F ₃ NO ₃
Molecular Weight:	709.96
Target:	Isotope-Labeled Compounds
Pathway:	Others
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 4 mg/mL (5.63 mM); ultrasonic and warming and heat to 60°C)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	1.4085 mL	7.0426 mL	14.0853 mL	
5 mM	0.2817 mL	1.4085 mL	2.8171 mL	
10 mM	---	---	---	

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

BIOLOGICAL ACTIVITY

Description

Pyridinium bisretinoid A2E-d₄ TFA is the deuterium-labeled Pyridinium bisretinoid A2E (HY-134928). Pyridinium bisretinoid A2E (A2E) is an initiator of blue-light-induced apoptosis. Photoactivation of Pyridinium bisretinoid A2E mediates autophagy and the production of reactive oxygen species^{[1][2][3][4]}.

In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs^[1].

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

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Jeong SY, et al. Photoactivation of N-retinylidene-N-retinylethanolamine compromises autophagy in retinal pigmented epithelial cells. *Food Chem Toxicol*. 2019 Sep;131:110555.

[3]. 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.

[4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-218.

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