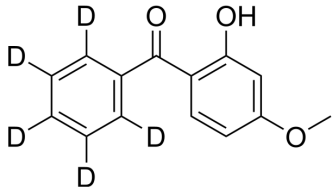
Oxybenzone-d5

Cat. No.:	HY-A0067S
CAS No.:	1219798-54-5
Molecular Formula:	$C_{14}H_7D_5O_3$
Molecular Weight:	233.27
Target:	RAR/RXR; Apoptosis; Autophagy
Pathway:	Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor; Apoptosis; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Oxybenzone-d_5 is the deuterium labeled Oxybenzone[1]. Oxybenzone (Benzophenone 3) is a commonly used UV filter in sun tans and skin protectants. Oxybenzone act as endocrine disrupting chemicals (EDCs) and can pass through the placental and blood-brain barriers. Benzophenone-3 impairs autophagy, alters epigenetic status, and disrupts retinoid X receptor signaling in apoptotic neuronal cells[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]. Wnuk A, et al. Prenatal exposure to benzophenone-3 (BP-3) induces apoptosis, disrupts estrogen receptor expression and alters the epigenetic status of mouse neurons. J Steroid Biochem Mol Biol. 2018;182:106-118.

[3]. DiNardo JC, et al. Can oxybenzone cause Hirschsprung's disease?. Reprod Toxicol. 201986:98-100.

[4]. Wnuk A, et al. Benzophenone-3 Impairs Autophagy, Alters Epigenetic Status, and Disrupts Retinoid X Receptor Signaling in Apoptotic Neuronal Cells. Mol Neurobiol. 201855(6):5059-5074.

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