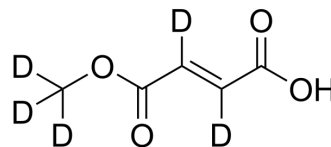


Monomethyl fumarate-d₅

Cat. No.:	HY-103252S1
CAS No.:	1616345-45-9
Molecular Formula:	C ₅ HD ₅ O ₄
Molecular Weight:	135.13
Target:	GPR109A; Drug Metabolite; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Monomethyl fumarate-d ₅ is deuterium labeled Monomethyl fumarate. Monomethyl fumarate, an active metabolite of Dimethyl fumarate (DMF), is a potent GPR109A agonist. Monomethyl fumarate has the potential for multiple neuroprotective pathways and other models of retinal disease[1][2][3].
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]. Jiang D, et al. Monomethyl Fumarate Protects the Retina From Light-Induced Retinopathy. Invest Ophthalmol Vis Sci. 2019 Mar 1;60(4):1275-1285.
- [2]. Sghaier R, et al. Dimethyl fumarate and monomethyl fumarate attenuate oxidative stress and mitochondrial alterations leading to oxiaoptophagy in 158N murine oligodendrocytes treated with 7β-hydroxycholesterol. J Steroid Biochem Mol Biol. 2019 Nov;194:105432.
- [3]. Tang H, et al. The psoriasis drug monomethylfumarate is a potent nicotinic acid receptor agonist. Biochem Biophys Res Commun. 2008 Oct 31;375(4):562-5.
- [4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

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