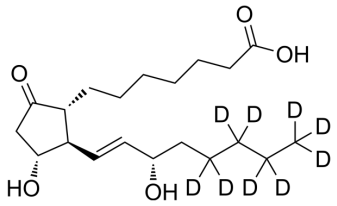
Prostaglandin E1-d_9

Cat. No.:	HY-B0131S2
CAS No.:	2342573-59-3
Molecular Formula:	$C_{20}H_{25}D_9O_5$
Molecular Weight:	363.54
Target:	Prostaglandin Receptor; Endogenous 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	Prostaglandin E1-d_9 is deuterium labeled Prostaglandin E1.Prostaglandin E1 is a prostanoid receptor ligand, with Kis of 1.1 nM, 2.1 nM, 10 nM, 33 nM and 36 nM for mouse EP3, EP4, EP2, IP and EP1, respectively. Prostaglandin E1 induces vasodilation and inh
IC_{50} & Target	EP
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[4]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kiriyama M, et, al. Ligand binding specificities of the eight types and subtypes of the mouse prostanoid receptors expressed in Chinese hamster ovary cells. Br J Pharmacol. 1997 Sep;122(2):217-24.

[2]. Cattaneo MG, et, al. Alprostadil suppresses angiogenesis in vitro and in vivo in the murine Matrigel plug assay. Br J Pharmacol. 2003 Jan;138(2):377-85.

[3]. Hauck EW, et, al. Prostaglandin E1 long-term self-injection programme for treatment of erectile dysfunction--a follow-up of at least 5 years. Andrologia. 1999;31 Suppl 1:99-103.

[4]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

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