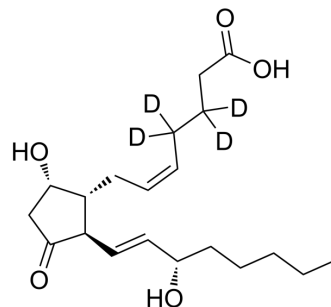


Prostaglandin D2-d₄

Cat. No.:	HY-101988S
CAS No.:	211105-29-2
Molecular Formula:	C ₂₀ H ₂₈ D ₄ O ₅
Molecular Weight:	356.49
Target:	Prostaglandin Receptor; Endogenous Metabolite
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Prostaglandin D2-d ₄ is the deuterium labeled Prostaglandin D2. Prostaglandin D2 (PGD2) is one of the major PGs actively produced in the brain of various mammals[1]. Prostaglandin D2 is one of the most potent endogenous sleep promoting substances[2]. PGD2 plays a protective role by suppressing inflammation[3].
IC₅₀ & Target	DP
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;53(2):211-216.
- [2]. Suzuki F, et al. Transport of prostaglandin D2 into brain. *Brain Res.* 1986 Oct 22;385(2):321-8.
- [3]. Zhang BJ, et al. Adenosine A2A receptor deficiency attenuates the somnogenic effect of prostaglandin D2 in mice. *Acta Pharmacol Sin.* 2017 Apr;38(4):469-476.
- [4]. Kida T, et al. Prostaglandin D2 Attenuates NSC 125066-Induced Lung Inflammation and Pulmonary Fibrosis. *PLoS One.* 2016 Dec 19;11(12):e0167729.

Caution: Product has not been fully validated for medical applications. For research use only.

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