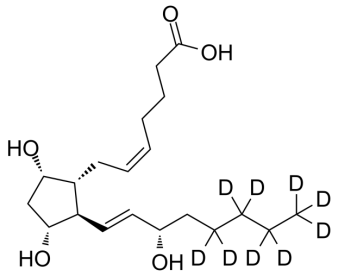
Dinoprost-d9

Cat. No.:	HY-12956S1
Molecular Formula:	$C_{20}H_{25}D_9O_5$
Molecular Weight:	363.54
Target:	Prostaglandin Receptor; Endogenous Metabolite; Autophagy; Apoptosis
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease; Autophagy; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dinoprost-d9 (Prostaglandin F2a-d9) is the deuterium labeled Dinoprost. Dinoprost (Prostaglandin F2α) is an orally active, potent prostaglandin F (PGF) receptor (FP receptor) agonist. Dinoprost is a luteolytic hormone produced locally in the endometrial luminal epithelium and corpus luteum (CL). Dinoprost plays a key role in the onset and progression of labour[1][2].
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]. Hagen Thieme, et al. Endothelin antagonism: effects of FP receptor agonists prostaglandin F2alpha and fluprostenol on trabecular meshwork contractility. Invest Ophthalmol Vis Sci. 2006 Mar;47(3):938-45.

[3]. Xin Wen, et al. Prostaglandin F2α Induces Goat Corpus Luteum Regression via Endoplasmic Reticulum Stress and Autophagy. Front Physiol. 2020 Sep 11;11:868.

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