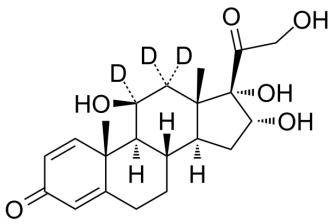
16α-Hydroxyprednisolone-d3

Cat. No.:	HY-117580S
Molecular Formula:	$C_{21}H_{25}D_3O_6$
Molecular Weight:	379.46
Target:	Drug Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	16α-Hydroxyprednisolone-d3 (OH-PRED-d3) is the deuterium labeled 16α-Hydroxyprednisolone. 16α-Hydroxyprednisolone is a stereoselective metabolite of the 22(R) epimer of the glucocorticoid budesonide via cytochrome P450 3A (CYP3A) enzymes[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]. Xavier Matabosch, et al. Identification of budesonide metabolites in human urine after oral administration. Anal Bioanal Chem. 2012 Aug;404(2):325-40.

[3]. G Jönsson, et al. Budesonide is metabolized by cytochrome P450 3A (CYP3A) enzymes in human liver. Drug Metab Dispos. 1995 Jan;23(1):137-42.

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