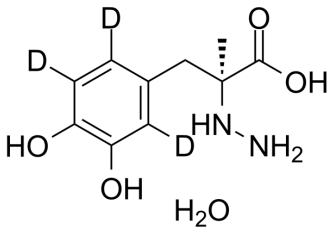
Carbidopa-d3 monohydrate

Cat. No.:	HY-B0311AS
CAS No.:	1276197-58-0
Molecular Formula:	$C_{10}H_{13}D_3N_2O_5$
Molecular Weight:	247.26
Target:	Aryl Hydrocarbon Receptor
Pathway:	Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Carbidopa-d_3 (monohydrate) is the deuterium labeled Carbidopa monohydrate. Carbidopa ((S)-(-)-Carbidopa) monohydrate, a peripheral decarboxylase inhibitor, can be used for the research of Parkinson's disease. Carbidopa monohydrate is a selective aryl hydrocarbon receptor (AhR) modulator. Carbidopa monohydrate inhibits pancreatic cancer cell and tumor growth[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]. Gilbert JA, et al. The aromatic-L-amino acid decarboxylase inhibitor carbidopa is selectively cytotoxic to human pulmonary carcinoid and small cell lung carcinoma cells. Clin Cancer Res. 2000;6(11):4365-4372.

[3]. Safe S. Carbidopa: a selective Ah receptor modulator (SAhRM). Biochem J. 2017;474(22):3763-3765. Published 2017 Nov 6.

[4]. Fermaglich J. Treatment of Parkinson's disease with carbidopa, a peripheral decarboxylase inhibitor, and levodopa. Med Ann Dist Columbia. 1974;43(12):587-591.

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