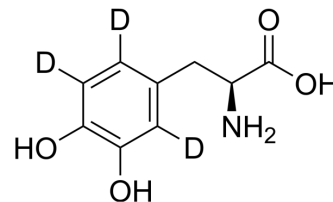


L-DOPA-2,5,6-d₃

Cat. No.:	HY-132392S		
CAS No.:	53587-29-4		
Molecular Formula:	C ₉ H ₈ D ₃ NO ₄		
Molecular Weight:	200.21		
Target:	Endogenous Metabolite; Dopamine Receptor		
Pathway:	Metabolic Enzyme/Protease; GPCR/G Protein; Neuronal Signaling		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H₂O : 25 mg/mL (124.87 mM; ultrasonic and warming and adjust pH to 1 with HCl and heat to 60°C)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	4.9948 mL	24.9738 mL	49.9476 mL
	5 mM	0.9990 mL	4.9948 mL	9.9895 mL
	10 mM	0.4995 mL	2.4974 mL	4.9948 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description	L-DOPA-2,5,6-d ₃ is the deuterium labeled L-DOPA. L-DOPA (Levodopa) is an orally active metabolic precursor of neurotransmitters dopamine. L-DOPA can cross the blood-brain barrier and is converted into dopamine in the brain[1][2][3].
IC₅₀ & Target	D ₃ Receptor
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

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- [2]. Hyland K, et al. Aromatic L-amino acid decarboxylase deficiency: diagnostic methodology. Clin Chem. 1992 Dec;38(12):2405-10.
- [3]. Merims D, et al. Dopamine dysregulation syndrome, addiction and behavioral changes in Parkinson's disease. Parkinsonism Relat Disord. 2008;14(4):273-80. Epub 2007 Nov 7.
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Caution: Product has not been fully validated for medical applications. For research use only.

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