

L-DOPA-2,5,6-D3

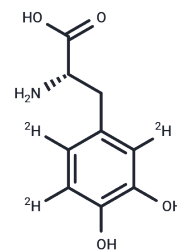
Chemical Properties

CAS No. : 53587-29-4

Formula: C₉H₁₁NO₄

Molecular Weight: 200.21

Storage: Keep away from moisture, Store at low temperature
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	L-DOPA-2,5,6-D3 is a deuterated isotope of L-Dopa for isotope tracing. L-DOPA (T0848) is an orally active metabolic precursor of the neurotransmitter dopamine, capable of crossing the blood-brain barrier and converting to dopamine within the brain. It exhibits anti-hyperalgesic effects and is utilised in Parkinson's disease research.
Targets(IC50)	Endogenous Metabolite, Dopamine Receptor

Solubility Information

Solubility	H ₂ O: 20 mg/mL (99.9 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.9948 mL	24.9738 mL	49.9476 mL
5 mM	0.999 mL	4.9948 mL	9.9895 mL
10 mM	0.4995 mL	2.4974 mL	4.9948 mL
50 mM	0.0999 mL	0.4995 mL	0.999 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

Hyland K, et al. Aromatic L-amino acid decarboxylase deficiency: diagnostic methodology. *Clin Chem.* 1992 Dec;38(12):2405-10.

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.

Perez-Pardo P, et al. Additive Effects of Levodopa and a Neurorestorative Diet in a Mouse Model of Parkinson's Disease. *Front Aging Neurosci.* 2018 Aug 3;10:237.

Park HJ, et al. Anti-allodynic effects of levodopa in neuropathic rats. *Yonsei Med J.* 2013 Mar 1;54(2):330-5.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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