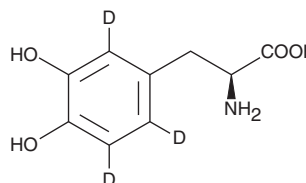


PRODUCT INFORMATION



L-DOPA-d₃ Item No. 22089

CAS Registry No.:	53587-29-4
Formal Name:	5-hydroxy-L-tyrosine-2,3,6-d ₃
Synonyms:	3,4-Dihydroxyphenylalanine-d ₃ , Levodopa-d ₃
MF:	C ₉ H ₈ D ₃ NO ₄
FW:	200.2
Chemical Purity:	≥95% (L-DOPA)
Deuterium	
Incorporation:	≥99% deuterated forms (d ₁ -d ₃); ≤1% d ₀
UV/Vis.:	λ _{max} : 284 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

L-DOPA-d₃ is intended for use as an internal standard for the quantification of L-DOPA (Item No. 13248) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

L-DOPA is a metabolic precursor of dopamine that is capable of crossing the blood-brain barrier.¹ It is produced from L-tyrosine by tyrosine hydroxylase and metabolized by catechol-O-methyl transferase (COMT). In the brain L-DOPA is converted to dopamine. Formulations containing L-DOPA have been used in stroke recovery and in the treatment of Parkinson's disease.

Reference

1. Berends, H.I., Nijlant, J.M.M., Movig, K.L.L., *et al.* The clinical use of drugs influencing neurotransmitters in the brain to promote motor recovery after stroke; a Cochrane systematic review. *Eur. J. Phys. Rehabil. Med.* **45(4)**, 621-630 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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