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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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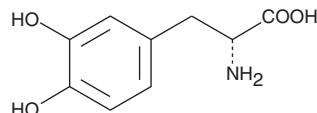
PRODUCT INFORMATION



D-DOPA

Item No. 13249

CAS Registry No.: 5796-17-8
Formal Name: 3-hydroxy-D-tyrosine
MF: $C_9H_{11}NO_4$
FW: 197.2
Purity: $\geq 95\%$
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥ 2 years



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

Laboratory Procedures

D-DOPA is supplied as a crystalline solid. A stock solution may be made by dissolving the D-DOPA in the solvent of choice, which should be purged with an inert gas. D-DOPA is soluble in the solvent 0.1 M hydrochloric acid at a concentration of approximately 10 mg/ml.

Description

D-DOPA is the dextrorotary isomer of the dopamine precursor L-DOPA (Item No. 13248). It can be converted to L-DOPA via sequential oxidation and transamination, which are mediated by D-amino acid oxidase (DAAO) and DOPA transaminase, respectively, in rat kidney homogenates.¹ It reduces the number of dopaminergic neurons in primary rat embryonic mesencephalic cultures in a concentration-dependent manner.² Intraventricular administration of D-DOPA (200 $\mu\text{g}/\text{animal}$) increases striatal dopamine levels in rats.³ D-DOPA (20 mg/kg, i.p.) induces contralateral turns in a rat model of Parkinson's disease induced by 6-OHDA (Item No. 25330).⁴

References

1. Wu, M., Zhou, X.-J., Konno, R., *et al.* D-dopa is unidirectionally converted to L-dopa by D-amino acid oxidase, followed by dopa transaminase. *Clin. Exp. Pharmacol. Physiol.* **33**(11), 1042-1046 (2006).
2. Ling, Z.-D., Pieri, S.C., and Carvey, P.M. Comparison of the neurotoxicity of dihydroxyphenylalanine stereoisomers in cultured dopamine neurons. *Clin. Neuropharmacol.* **19**(4), 360-365 (1996).
3. Karoum, F., Freed, W.J., Chuang, L.-W., *et al.* D-dopa and L-dopa similarly elevate brain dopamine and produce turning behavior in rats. *Brain Res.* **440**(1), 190-194 (1988).
4. Moses, J., Siddiqui, A., and Silverman, P.B. Sodium benzoate differentially blocks circling induced by D- and L-dopa in the hemi-parkinsonian rat. *Neurosci. Lett.* **218**(3), 145-148 (1996).

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.

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