**D-DOPA**  
*Item No. 13249*

**CAS Registry No.:** 5796-17-8  
**Formal Name:** 3-hydroxy-D-tyrosine  
**MF:** C₉H₁₁NO₄  
**FW:** 197.2  
**Purity:** ≥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. It reduces the number of dopaminergic neurons in primary rat embryonic mesencephalic cultures in a concentration-dependent manner. Intraventricular administration of D-DOPA (200 µg/animal) increases striatal dopamine levels in rats. 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*).

### References