

Certificate of Analysis

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Product Name: L-DOPA

Catalog No.: 3788

Batch No.: 4

CAS Number: 59-92-7

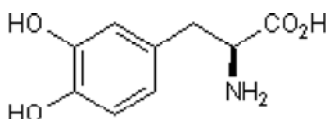
EC Number: 200-445-2

IUPAC Name: L-3,4-Dihydroxyphenylalanine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉H₁₁NO₄.
Batch Molecular Weight: 197.19
Physical Appearance: White solid
Solubility: water to 5 mM
 1eq. HCl to 50 mM
Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -12.4 (Concentration = 5, Solvent = 1N HCl)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.82	5.62	7.1
Found	54.73	5.74	7.09

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Product Information

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Catalog No.: 3788

Batch No.: 4

CAS Number: 59-92-7

EC Number: 200-445-2

IUPAC Name: L-3,4-Dihydroxyphenylalanine

Description:

L-DOPA is an immediate precursor of dopamine, produced by tyrosine hydroxylase. Displays antiParkinsonian activity.

Physical and Chemical Properties:

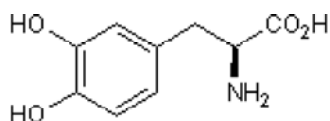
Batch Molecular Formula: C₉H₁₁NO₄.

Batch Molecular Weight: 197.19

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 5 mM

1eq. HCl to 50 mM

CAUTION: L-DOPA rapidly degrades in alkaline solutions

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Pisani and Shen (2009) Levodopa-induced dyskinesia and striatal signaling pathways. *Proc.Natl.Acad.Sci.USA* **106** 2973.

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