Certificate of Analysis

Product Name: **L-DOPA**
CAS Number: 59-92-7
IUPAC Name: L-3,4-Dihydroxyphenylalanine

Catalog No.: 3788 **Batch No.: 3**
EC Number: 200-445-2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_9H_{11}NO_4$

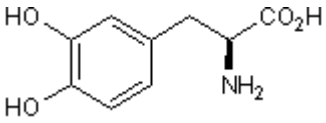
Batch Molecular Weight: 197.19

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 100% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -11.7 (Concentration = 1, Solvent = 1N HCl)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.82	5.62	7.1
Found	54.82	5.65	7.11

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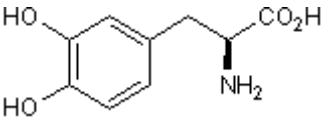
EC Number: 200-445-2
IUPAC Name: L-3,4-Dihydroxyphenylalanine

Description:
Immediate precursor of dopamine, produced by tyrosine hydroxylase. Displays antiParkinsonian activity.

Physical and Chemical Properties:
Batch Molecular Formula: $C_9H_{11}NO_4$
Batch Molecular Weight: 197.19
Physical Appearance: White solid

Minimum Purity: >99%

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.