

# L-DOPA

**Catalog No: tcsc1945**



## Available Sizes

**Size:** 200mg

**Size:** 1g



## Specifications

**CAS No:**

59-92-7

**Formula:**

$C_9H_{11}NO_4$

**Pathway:**

GPCR/G Protein;Neuronal Signaling;Metabolic Enzyme/Protease

**Target:**

Dopamine Receptor;Dopamine Receptor;Endogenous Metabolite

**Purity / Grade:**

>98%

**Solubility:**

H2O : 2 mg/mL (10.14 mM; Need ultrasonic and warming)

**Alternative Names:**

Levodopa;3,4-Dihydroxyphenylalanine

**Observed Molecular Weight:**

197.19

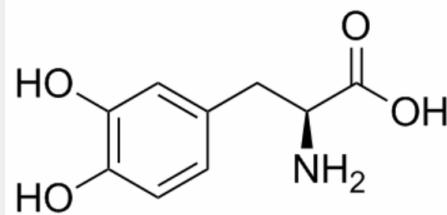
## Product Description

L-DOPA is a natural form of DOPA used in the treatment of Parkinson's disease. L-DOPA is the precursor of dopamine and product of tyrosine hydroxylase.

Target: Dopamine Receptor

L-DOPA (L-3,4-dihydroxyphenylalanine) is a chemical that is made and used as part of the normal biology of humans, some animals and plants. Some animals and humans make it via biosynthesis from the amino acid L-tyrosine. L-DOPA is the precursor to the neurotransmitters dopamine, norepinephrine (noradrenaline), and epinephrine collectively known as catecholamines. L-DOPA can be manufactured and in its pure form is sold as a psychoactive drug with the INN levodopa; trade names include Sinemet, Parcopa, Atamet, Stalevo, Madopar, Prolopa, etc. As a drug it is used in the clinical treatment of Parkinson's disease and dopamine-responsive dystonia.

L-DOPA crosses the protective blood-brain barrier, whereas dopamine itself cannot. Thus, L-DOPA is used to increase dopamine concentrations in the treatment of Parkinson's disease and dopamine-responsive dystonia. This treatment was made practical and proven clinically by George Cotzias and his coworkers, for which they won the 1969 Lasker Prize. In addition, L-DOPA, co-administered with a peripheral DDCI, has been investigated as a potential treatment for restless leg syndrome. However, studies have demonstrated "no clear picture of reduced symptoms".



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!