

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

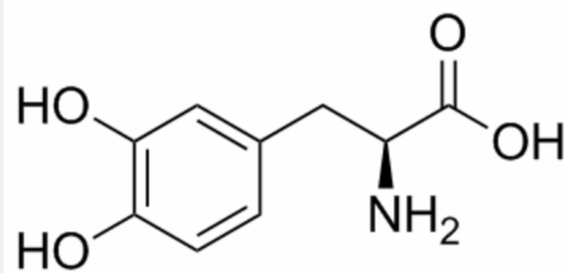
Product Description

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".



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