

Certificate of Analysis

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Product Name: (S)-(-)-Carbidopa

CAS Number: 28860-95-9

IUPAC Name: (S)- α -Hydrazino- α -methyl- β -(3,4-dihydroxyphenyl)propionic acid

Catalog No.: 0455

Batch No.: 4

EC Number: 249-271-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₄N₂O₄·H₂O

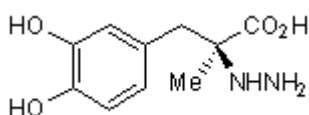
Batch Molecular Weight: 244.25

Physical Appearance: White solid

Solubility: DMSO to 20 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: [α]_D = -18.5 (Concentration = 1, Solvent = Methanol)

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	49.18	6.6	11.47
Found	48.96	6.52	11.5

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

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Description:

Peripheral decarboxylase inhibitor, used in combination with levodopa for treatment of Parkinsonism.

Physical and Chemical Properties:

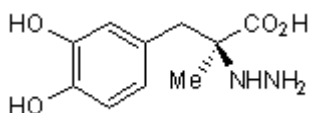
Batch Molecular Formula: C₁₀H₁₄N₂O₄.H₂O

Batch Molecular Weight: 244.25

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 20 mM

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:

Merck Index **12** 1843.

Kopfhammer et al (1985) L-Dopa infusion experiments in combination with the L-dopa decarboxylase inhibitors benserazide and carbidopa - L-dopa metabolism and neuroendocrinological effects. *Pharmacopsychiatry* **18** 143.

Cheng et al (1992) Carbidopa inhibition of aromatic L-amino acid decarboxylase in rat brain capillaries. *FASEB J.* **6** A1589.

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