

Certificate of Analysis

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Product Name: (S)-3,5-DHPG

Catalog No.: 0805

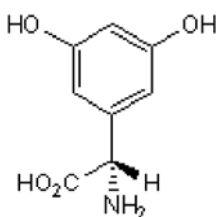
Batch No.: 39

CAS Number: 162870-29-3

IUPAC Name: (S)-3,5-Dihydroxyphenylglycine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₉NO₄·³/₄H₂O
Batch Molecular Weight: 196.67
Physical Appearance: Off White solid
Solubility: water to 50 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
Chiral HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +127.7 (Concentration = 1, Solvent = 6N HCl)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.86	5.38	7.12
Found	48.9	5.24	7.09

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

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IUPAC Name: (S)-3,5-Dihydroxyphenylglycine

Description:

(S)-3,5-DHPG is a selective group I mGlu receptor agonist. (S)-3,5-DHPG regulates the expression of microRNAs in mouse cerebral cortex in vivo. (S)-3,5-DHPG induces a profound depression of synaptic dopamine release in mouse corticostriatal cells in vitro, and anxiety-like behavior in vivo in mice. Racemate also available.

Physical and Chemical Properties:

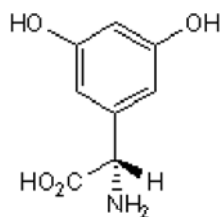
Batch Molecular Formula: C₈H₉NO₄·¾H₂O

Batch Molecular Weight: 196.67

Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Desiccate at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 50 mM

Whilst supplied of high purity, this product is very sensitive to air and light promoted oxidation, and may discolour slightly over time. Chemical and pharmacological analysis shows that this discolouration has no noticeable effect on its properties and can be safely ignored. Further analysis has shown that this product rapidly decomposes when dissolved in alkaline solution. Therefore, as a precautionary measure we recommend that the solid material be stored at -20°C, away from light, under which conditions it should be stable for 6 months from the date of purchase. When made up, stock solutions should be aliquoted, stored at -20°C and used within one week.

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:

Mercuri et al (2021) Long-term depression of striatal DA release induced by mGluRs via sustained hyperactivity of local cholinergic interneurons. *Front Cell Neurosci.* **15** 798464. PMID: 34924961 .

Lusardi et al (2012) Effect of (S)-3,5-DHPG on microRNA expression in mouse brain. *Exp.Neurol.* **235** 497. PMID: 22309833.

Wisniewski and Car (2002) (S)-3,5-DHPG: a review. *CNS Drug Rev.* **8** 101. PMID: 12070529.

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