

Certificate of Analysis

Print Date: Jul 11th 2025

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Product Name: 6-Hydroxydopamine hydrobromide Catalog No.: 2547 Batch No.: 8

CAS Number: 636-00-0 EC Number: 211-247-0

IUPAC Name: 5-(2-Aminoethyl)-1,2,4-benzenetriol hydrobromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈H₁₁NO₃.HBr.

Batch Molecular Weight: 250.09

Physical Appearance: Brown solid

Solubility: water to 100 mM

DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

HO NH₂

2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 38.42 4.84 5.6 Found 38.85 4.64 5.53

Product Information

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IUPAC Name: 5-(2-Aminoethyl)-1,2,4-benzenetriol hydrobromide

Description:

6-Hydroxydopamine hydrobromide is a selective catecholaminergic neurotoxin. Depletes brain catecholamine levels via uptake and accumulation by a transport mechanism specific to these neurons. Causes almost complete destruction of nigral dopaminergic neurons and their striatal terminals when injected into the substantia nigra of rats, producing an animal model of Parkinson's disease.

Physical and Chemical Properties:

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Batch Molecular Weight: 250.09 Physical Appearance: Brown solid

Batch Molecular Structure:

Storage: Store 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 100 mM DMSO to 100 mM

CAUTION: This product is very sensitive to air and light promoted oxidation. Therefore, as a precautionary measure we recommend that the solid material be stored at -20°C, away from light. Solutions should be freshly prepared and protected from exposure to light. We recommend that solutions are prepared by dissolving the compound in oxygen-free water containing 0.1% sodium metabisulfite.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Fujita *et al* (2006) Cell-permeable cAMP analog suppresses 6-hydroxyDA-induced apoptosis in PC12 cells through the activation of the Akt pathway. Brain Res. *1113* 10. PMID: 16945353.

Soto-Otero *et al* (2000) Autoxidation and neurotoxicity of 6-hydroxyDA in the presence of some antioxidants: potential implication in relation to the pathogenesis of Parkinson's disease. J.Neurochem. **74** 1605. PMID: 10737618.

Breese and Traylor (1970) Effect of 6-hydroxyDA on brain NE and DA: evidence for selective degeneration of catecholamine neurons. J.Pharmacol.Exp.Ther. **174** 413. PMID: 5456173.

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