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DATASHEET

6-Hydroxydopamine (6-OHDA) hydrobromide

Product overview

6-Hydroxydopamine (6-OHDA) hydrobromide Name

Cat No

Alternative names 6-OHDA, Oxidopamine

Biological action Toxin **Purity** >98%

Description Neurotoxin, widely used to produce the 6-OHDA Parkinson's disease model

Biological Data

Biological description

6-hydroxydopamine hydrobromide (6-OHDA) is widely used to lesion the nigrostriatal dopaminergic system as a model of Parkinson's disease (6-OHDA lesion model).

6-OHDA is commonly unilaterally administered into the medial forebrain bundle (MFB), substantia nigra or striatum to induce a selective depletion of dopamine neurons to reproduce behavioural deficits seen in Parkinson's disease. Varying degrees of neurodegeneration occur depending on site of administration.

Unilateral administration of 6-OHDA into one hemisphere (hemiparkinsonian model) permits assessment of a quantifiable turning behaviour which can be correlated with the magnitude of the nigrostriatal lesions. Bilateral 6-OHDA lesion models may also be used.

Solubility & Handling

Solubility overview Storage instructions Handling

Soluble in water (100 mM) and in DMSO (100 mM)

-20°C

This compound is very air and light sensitive; exposure to air/light may affect compound performance. We therefore recommend storing the solid material at -20°C in a sealed jar, in the dark and protect from light. As the compound is hygroscopic, dessicate if possible.

Do not store the material in solution; make up solutions and use immediately. Protect from light. Solutions can be prepared using oxygen free water containing 0.1% sodium metabisulfite.

Stable for ambient temperature shipping. Follow storage instructions on receipt.

This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Shipping Conditions

Important

Chemical name 5-(2-Aminoethyl)-1,2,4-benzenetriol hydrobromide

NH₂

Molecular Weight 250.09 HO **Chemical structure**

HBr HO Molecular Formula $C_8H_{11}NO_3 \cdot HBr$

CAS Number 636-00-0 **PubChem identifier** 176170

SMILES C1=C(C(=CC(=C1O)O)O)CCN.Br InChi InChiKey MDL number Appearance InChl=1S/C8H11NO3.BrH/c9-2-1-5-3-7(11)8(12)4-6(5)10;/h3-4,10-12H,1-2,9H2;1H

MLACDGUOKDOLGC-UHFFFAOYSA-N

MFCD00012894 Off-white to brown solid

References

A guide to neurotoxic animal models of Parkinson's disease.

Tieu K (2011) Cold Spring Harb Perspect Med 1(1)

Unilateral Lesion of Dopamine Neurons Induces Grooming Asymmetry in the Mouse.

Pelosi et al (2015) PLoS One 10(9)

PubMedID 26397369

Limitations of animal models of Parkinson's disease.

Potashkin et al (2010) Parkinsons Dis 2011:658083 **PubMedID**21209719

Behavioral characterization of a unilateral 6-OHDA-lesion model of Parkinson's disease in mice.

lancu et al (2005) Behav Brain Res. 162(1) **PubMedID**15922062