

Certificate of Analysis

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Product Name: Conduritol B epoxide

Catalog No.: 7056

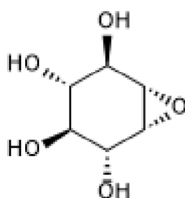
Batch No.: 2

CAS Number: 6090-95-5

IUPAC Name: DL-1,2-Anhydro-*myo*-inositol

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆H₁₀O₅
Batch Molecular Weight: 162.14
Physical Appearance: White solid
Solubility: water to 100 mM
DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



(and enantiomer)

2. ANALYTICAL DATA

¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.45	6.22	
Found	44.38	6.26	

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

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Batch No.: 2

CAS Number: 6090-95-5

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Description:

Conduritol B epoxide is an irreversible glucocerebrosidase (GBA) inhibitor ($K_i = 53 \mu\text{M}$; $\text{IC}_{50} = 4.28 - 9.49 \mu\text{M}$). Also inhibits lysosomal α -glucosidase. Used to generate animal models of Gaucher disease. Accelerates recovery of peripheral nerve injury in mice. Preserves motoneurons and ganglioside distribution at the neuromuscular junction, delays disease onset and improves motor function in a mouse ALS model.

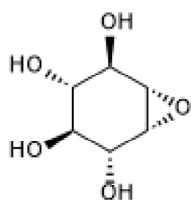
Physical and Chemical Properties:

Batch Molecular Formula: $\text{C}_6\text{H}_{10}\text{O}_5$

Batch Molecular Weight: 162.14

Physical Appearance: White solid

Batch Molecular Structure:



(and enantiomer)

Storage: Store at -20°C . This product is packaged under an inert atmosphere.

Solubility & Usage Info:

water to 100 mM

DMSO to 100 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 $45-60^\circ\text{C}$ 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:

Artola et al (2019) Functionalized cyclophellitols are selective glucocerebrosidase inhibitors and induce a *bona fide* neuropathic Gaucher model in zebrafish. *J.Am.Chem.Soc.* **141** 4214. PMID: 30811188.

Kuo et al (2019) *In vivo* inactivation of glycosidases by conduritol B epoxide and cyclophellitol as revealed by activity-based protein profiling. *FEBS J.* **286** 584. PMID: 30600575.

Henriques et al (2017) Inhibition of β -glucocerebrosidase activity preserves motor unit integrity in a mouse model of Amyotrophic Lateral Sclerosis. *Sci.Rep.* **7** 5235. PMID: 28701774.

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