

Certificate of Analysis

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Product Name: NXY 059

Catalog No.: 3645

Batch No.: 1

CAS Number: 168021-79-2

IUPAC Name: 4-[[[(1,1-Dimethylethyl)oxoimino]methyl]-1,3-benzenedisulfonic acid disodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{11}H_{13}NNa_2O_7S_2 \cdot 1\frac{1}{2}H_2O$

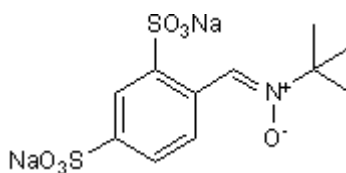
Batch Molecular Weight: 408.35

Physical Appearance: White solid

Solubility: water to 100 mM
DMSO to 100 mM

Storage: Desiccate at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	32.35	3.95	3.43
Found	32.3	3.73	3.13

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

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Description:

Free radical trapping agent. Reduces infarct size and preserves brain function in several animal models of acute ischemic stroke. Neuroprotectant.

Physical and Chemical Properties:

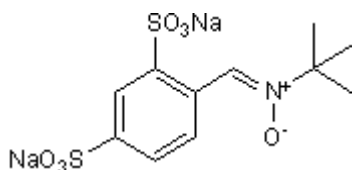
Batch Molecular Formula: C₁₁H₁₃NNa₂O₇S₂·1½H₂O

Batch Molecular Weight: 408.35

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



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

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 hygroscopic and we recommend that it is desiccated upon arrival.

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:

Peeling et al (2001) Efficacy of disodium 4-[(tert-butylimino)methyl]benzene-1,3-disulfonate N-oxide (NXY-059), a free radical trapping agent, in a rat model of hemorrhagic stroke. *Neuropharmacology* **40** 433. PMID: 11166336.

Sydserrff et al (2002) Effect of NXY-059 on infarct volume after transient or permanent middle cerebral artery occlusion in the rat; studies on dose, plasma concentration and therapeutic time window. *Br.J.Pharmacol.* **135** 103. PMID: 11786485.

Culot et al (2009) Cerebrovascular protection as a possible mechanism for the protective effects of NXY-059 in preclinical models: an in vitro study. *Brain Res.* **1294** 144. PMID: 19631615.

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