bio-techne
TOCRIS

Print Date: Jun 5th 2024

Certificate of Analysis

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Product Name: **Suramin hexasodium salt** **Catalog No.: 1472** **Batch No.: 10**

CAS Number: 129-46-4 EC Number: 204-949-3

IUPAC Name: 8,8'-[Carbonyl*bis*[imino-3,1-phenylenecarbonylimino(4-methyl-3,1-phenylene)carbonylimino]]*bis*-1,3,5-naphthalenetrisulfonic acid hexasodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{51}H_{34}N_6Na_6O_{23}S_6.10H_2O$

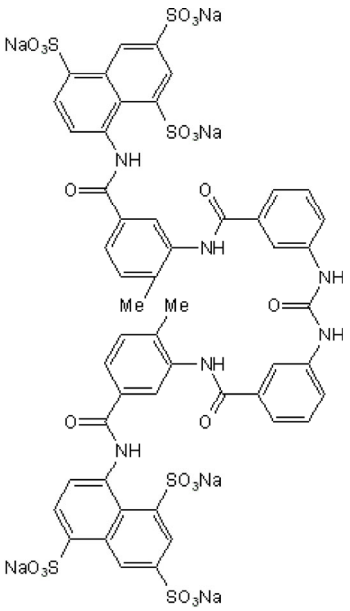
Batch Molecular Weight: 1609.302

Physical Appearance: White solid

Solubility: water to 50 mg/ml
DMSO to 5 mg/ml

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	38.06	3.38	5.22
Found	37.88	3.2	5.01

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Description:

Suramin hexasodium salt is a non-selective P2 purinergic antagonist. Also blocks calmodulin binding to recognition sites and G protein coupling to G protein-coupled receptors. Increases open probability of ryanodine receptor (RyR) channels and acts as a competitive α1β2γ2 $GABA_A$ receptor antagonist. Anticancer, antiviral and antiparasitic agent. This product may be supplied with a high degree of hydration and some residual NaCl, the amounts of which are batch dependent. Please refer to the Certificate of Analysis to obtain the batch specific Net Product Content.

Physical and Chemical Properties:

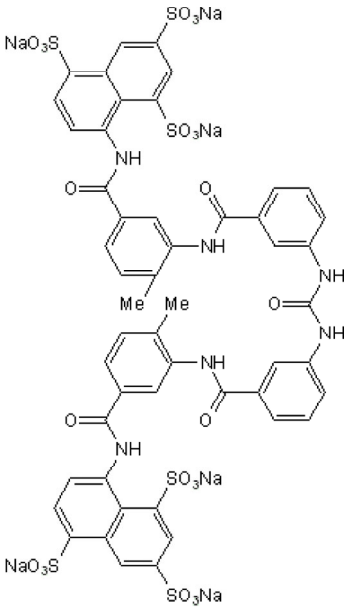
Batch Molecular Formula: $C_{51}H_{34}N_6Na_6O_{23}S_6.10H_2O$

Batch Molecular Weight: 1609.302

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at RT

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 mg/ml
DMSO to 5 mg/ml

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:

Luo *et al* (2018) Suramin is a novel competitive antagonist selective to α1β2γ2 $GABA_A$ over ρ1 $GABA_C$ receptors. Neuropharmacology. ***141*** 148. PMID: 30172846.

Hill *et al* (2004) Functional regulation of the cardiac ryanodine receptor by suramin and calmodulin involves multiple binding sites. Mol.Pharmacol. ***65*** 1258. PMID: 15102954.

Klinger *et al* (2001) Suramin and the suramin analogue NF307 discriminate among calmodulin-binding sites. Biochem.J. ***355*** 827. PMID: 11311147.