

Product Name: DIDS

Catalog No.: 4523

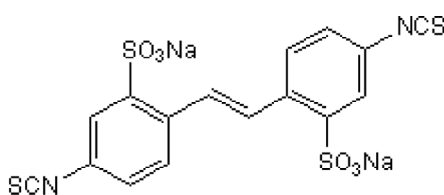
Batch No.: 8

CAS Number: 67483-13-0

IUPAC Name: 4,4'-Diisothiocyanato-2,2'-stilbenedisulfonic acid disodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₈N₂Na₂O₆S₄
Batch Molecular Weight: 498.48
Physical Appearance: Beige solid
Solubility: Potassium bicarbonate (0.1M) to 5 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.2% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

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

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IUPAC Name: 4,4'-Diisothiocyanato-2,2'-stilbenedisulfonic acid disodium salt

Description:

DIDS is a Cl⁻-K⁺ chloride channel blocker (IC₅₀ = 100 μM). Blocks the maxi chloride channel in apical membranes from human placenta. Displays antagonistic activity at TRPM4 and TRPC4 channels; potentiates agonist-induced TRPV1 currents (IC₅₀ = 4.88 μM in rat DRG neurons). Inhibits RAD51 recombinase activity (K_D = 2 μM).

Physical and Chemical Properties:

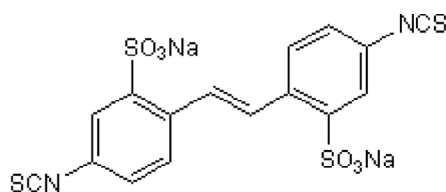
Batch Molecular Formula: C₁₆H₈N₂Na₂O₆S₄

Batch Molecular Weight: 498.48

Physical Appearance: Beige solid

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at +4°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:

Potassium bicarbonate (0.1M) to 5 mM

Solutions in Potassium bicarbonate may appear hazy.

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:

Zhang *et al* (2012) Agonist-dependent potentiation of vanilloid receptor transient receptor potential vanilloid type 1 function by stilbene derivatives. *Mol.Pharmacol.* **81** 689. PMID: 22328719.

Ishida *et al* (2009) DIDS, a chemical compound that inhibits RAD51-mediated homologous pairing and strand exchange. *Nucleic Acids Res.* **37** 3367. PMID: 19336413.

Wulff (2008) New light on the "old" chloride channel blocker DIDS. *ACS Chem.Biol.* **3** 399. PMID: 18642798.

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