

**Product Name:** DIDS

**Catalog No.:** 4523

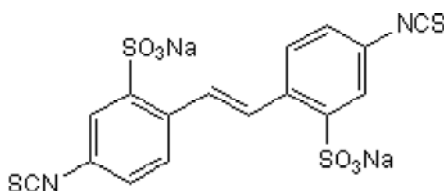
**Batch No.:** 4

CAS Number: 67483-13-0

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

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>16</sub>H<sub>8</sub>N<sub>2</sub>Na<sub>2</sub>O<sub>6</sub>S<sub>4</sub>  
**Batch Molecular Weight:** 498.48  
**Physical Appearance:** Yellow solid  
**Solubility:** DMSO to 10 mM  
 Potassium bicarbonate (0.1M) to 10 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 98.2% purity  
**<sup>1</sup>H 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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**Description:**

Cl<sup>-</sup>-K<sup>+</sup> chloride channel blocker (IC<sub>50</sub> = 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 (IC<sub>50</sub> = 4.88 μM in rat DRG neurons). Inhibits RAD51 recombinase activity (K<sub>D</sub> = 2 μM).

**Physical and Chemical Properties:**

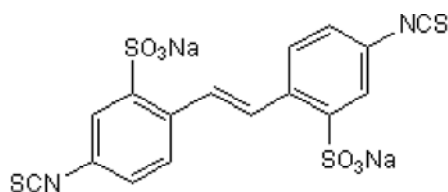
Batch Molecular Formula: C<sub>16</sub>H<sub>8</sub>N<sub>2</sub>Na<sub>2</sub>O<sub>6</sub>S<sub>4</sub>

Batch Molecular Weight: 498.48

Physical Appearance: Yellow 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:**

DMSO to 10 mM

Potassium bicarbonate (0.1M) to 10 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°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:**

**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.

**Riquelme and Parra et al (1999)** Regulation of human placental chloride channel by arachidonic acid and other cis unsaturated fatty acids. *Am.J.Obstet.Gynecol.* **180** 469. PMID: 9988821.

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