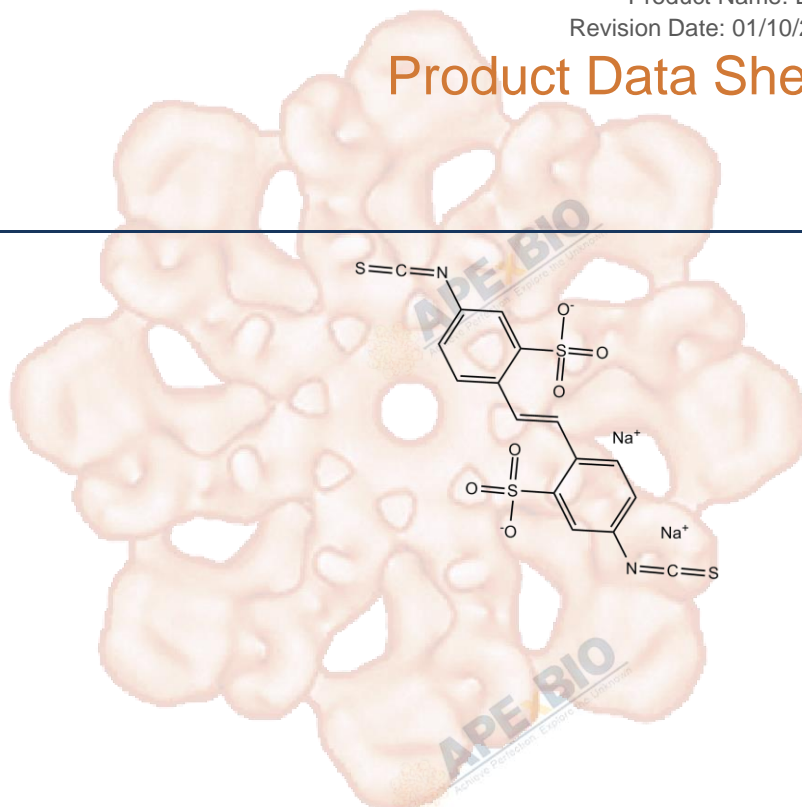


Product Data Sheet

DIDS

Cat. No.:	B7675
CAS No.:	67483-13-0
Formula:	C ₁₆ H ₈ N ₂ Na ₂ O ₆ S ₄
M.Wt:	498.48
Synonyms:	
Target:	Others
Pathway:	Reagents
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; insoluble in EtOH; insoluble in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.0061 mL	10.0305 mL	20.0610 mL
	5 mM	0.4012 mL	2.0061 mL	4.0122 mL
	10 mM	0.2006 mL	1.0030 mL	2.0061 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

anion transport inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	DRG(dorsal root ganglion) neurons extracted from the spinal levels of 6- to 8-week-old Sprague-Dawley rats
Preparation method:	Soluble in DMSO > 10mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	0.1, 1, 3, 10, 100µm for 2min; simultaneous detection from adding first drop

	Applications:	In DRG neurons, although DIDS did not induce the activation of TRPV1(Transient receptor potential vanilloid type 1) per se but drastically increased the TRPV1 currents induced by either capsaicin or low pH. DIDS could modify TRPV1 channel function in an agonist-dependent manner.
In Vivo	Animal experiment	
	Animal models:	4–5 day old newborn healthy Sprague-Dawley rats (both males and females)
	Dosage form:	5 mg/kg, intraperitoneal injection
	Applications:	DIDS significantly reduced the elevated mRNA levels and protein expression of chloride channel 2 (CIC-2) in neonatal rats induced by ischemia-hypoxia. DIDS application significantly decreased the concentrations of reactive oxygen species (ROS); and the mRNA levels of inducible nitric oxide synthase (iNOS) and tumor necrosis factor-alpha(TNF- α) in neonatal rats with hypoxic-ischemic damage. The elevated number of caspase-3 and neural/glial antigen 2 (NG-2) double-labeled positive cells was attenuated by DIDS after ischemia anoxic injury.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. Zhang X1, Du XN, et al, Agonist-dependent potentiation of vanilloid receptor transient receptor potential vanilloid type 1 function by stilbene derivatives. Mol Pharmacol. 2012 May;81(5):689-700. doi: 10.1124/mol.111.076000. Epub 2012 Feb 10.
- [2]. Zhao B1, Quan H2, 4,4'-Diisothiocyano-stilbene-2,2'-disulfonic Acid (DIDS) Ameliorates Ischemia-Hypoxia-Induced White Matter Damage in Neonatal Rats through Inhibition of the Voltage-Gated Chloride Channel CIC-2. Int J Mol Sci. 2015 May 7;16(5):10457-69. doi: 10.3390/ijms160510457.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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