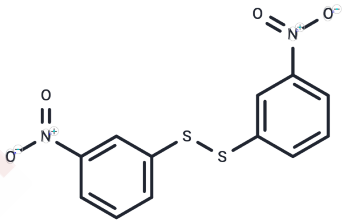
Data Sheet (Cat.No.T21089)

TargetMol

Nitrophenide

Chemical Properties



CAS No. : 537-91-7

Formula: C12H8N2O4S2

Molecular Weight: 308.33

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Nitrophenide (3,3'-Dinitrodiphenyl disulfide) inhibits mannitol-1-phosphate dehydrogenase (M1PDH), which catalyzes the committed enzymatic step in the mannitol cycle. Nitrophenide can be used as an anticoccidial agent.
Targets(IC50)	Parasite,Dehydrogenase

Solubility Information

Solubility	DMSO: 50 mg/mL (162.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2433 mL	16.2164 mL	32.4328 mL
5 mM	0.6487 mL	3.2433 mL	6.4866 mL
10 mM	0.3243 mL	1.6216 mL	3.2433 mL
50 mM	0.0649 mL	0.3243 mL	0.6487 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Allocco JJ, et al. Nitrophenide (Megasul) blocks Eimeria tenella development by inhibiting the mannitol cycle enzyme mannitol-1-phosphate dehydrogenase. J Parasitol. 2001 Dec;87(6):1441-8.
Zimnicka M, et al. Reactions of nitrophenide and halonitrophenide ions with acrylonitrile and alkyl acrylates in the gas phase: addition to the carbonyl group versus Michael addition. J Mass Spectrom. 2012 Apr;47(4):425-38.
Danikiewicz W, et al. Aromatic nucleophilic substitution (SNAr) reactions of 1,2- and 1,4-halonitrobenzenes and 1,4-dinitrobenzene with carbanions in the gas phase. J Am Soc Mass Spectrom. 2007 Aug;18(8):1351-63. Epub 2007 Apr 25.
Danikiewicz W, Bieńkowski T, Poddebniak D. Generation and reactions of anionic sigma-adducts of 1,3-dinitrobenzene and 1,3,5-trinitrobenzene with carbanions in a gas phase, using an electrospray ion source as the chemical reactor. J Am Soc Mass Spectrom. 2004 Jun;15(6):927-33.

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