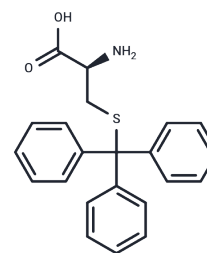


S-trityl-L-Cysteine

Chemical Properties

CAS No. :	2799-07-7
Formula:	C ₂₂ H ₂₁ NO ₂ S
Molecular Weight:	363.47
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	S-trityl-L-Cysteine is a potent inhibitor of human mitotic kinesin Eg5
Targets(IC50)	Apoptosis,Kinesin
In vitro	In vitro, S-trityl-L-Cysteine targets the catalytic domain of Eg5 and inhibits Eg5 basal and microtubule-activated ATPase activity as well as mant-ADP release. S-trityl-L-Cysteine is a tight binding inhibitor (estimation of $K(i,app) < 150$ nm at 300 mM NaCl and 600 nm at 25 mM KCl). S-trityl-L-Cysteine binds more tightly than monastrol because it has both an approximately 8-fold faster association rate and approximately 4-fold slower release rate (6.1/microM/s and 3.6/s for S-trityl-L-Cysteine versus 0.78 /microM/s and 15/s for monastrol). S-trityl-L-Cysteine inhibits Eg5-driven microtubule sliding velocity in a reversible fashion with an IC50 of 500 nm[2].

Solubility Information

Solubility	DMSO: 29.41 mg/mL (80.91 mM),Sonication is recommended. Methanol: 1 mg/mL (2.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 2.94 mg/mL (8.09 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2.94 mg/mL (8.09 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7513 mL	13.7563 mL	27.5126 mL
5 mM	0.5503 mL	2.7513 mL	5.5025 mL
10 mM	0.2751 mL	1.3756 mL	2.7513 mL
50 mM	0.055 mL	0.2751 mL	0.5503 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

Wu W, et al. S-trityl-L-cysteine, a novel Eg5 inhibitor, is a potent chemotherapeutic strategy in neuroblastoma. *Oncol Lett.* 2018 Jul;16(1):1023-1030.

Skoufias DA, et al. S-trityl-L-cysteine is a reversible, tight binding inhibitor of the human kinesin Eg5 that specifically blocks mitotic progression. *J Biol Chem.* 2006 Jun 30;281(26):17559-69.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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