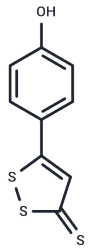
Data Sheet (Cat.No.T3560)

TargetMol

Desmethylanethol trithione

Chemical Properties



CAS No. : 18274-81-2

Formula: C9H6OS3

Molecular Weight: 226.34

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	Desmethylanethol trithione (ADT-OH) is a derivative of anethole dithiolethione (ADT) and synthetic hydrogen sulfide (H2S) donor. In the in vitro glucose-oxygen deprivation (OGD) model, Desmethylanethol trithione markedly attenuated tPA-enhanced Akt activation and VEGF expression in brain microvascular endothelial cells. Finally, Desmethylanethol trithione improved functional outcomes in mice subjected to MCAO and tPA infusion. H2S donors reduced tPA-induced cerebral hemorrhage by possibly inhibiting the Akt-VEGF-MMP9 cascade. Administration of H2S donors has potential as a novel modality to improve the safety of tPA following the stroke.
Targets(IC50)	Apoptosis,FAK,Akt,VEGFR
In vitro	In glucose-oxygen deprivation (OGD) model, ADT-OH markedly attenuated tPA-enhanced Akt activation and VEGF expression in brain microvascular endothelial cells. Finally, ADT-OH improved functional outcomes in mice subjected to MCAO and tPA infusion.

Solubility Information

Solubility	DMSO: 45 mg/mL (198.82 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.84 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4181 mL	22.0907 mL	44.1813 mL
5 mM	0.8836 mL	4.4181 mL	8.8363 mL
10 mM	0.4418 mL	2.2091 mL	4.4181 mL
50 mM	0.0884 mL	0.4418 mL	0.8836 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

Hasegawa U,et al. Hydrolysis-Sensitive Dithiolethione Prodrug Micelles. Macromol Biosci. 2015 Nov;15(11):1512-22.