

## Desmethylanethol trithione

## Chemical Properties

CAS No. :	18274-81-2
Formula:	C <sub>9</sub> H <sub>6</sub> OS <sub>3</sub>
Molecular Weight:	226.34
Appearance:	no data available
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Desmethylanethol trithione (ADT-OH) is a derivative of anethole dithiolethione (ADT) and synthetic hydrogen sulfide (H <sub>2</sub> S) 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. H <sub>2</sub> S donors reduced tPA-induced cerebral hemorrhage by possibly inhibiting the Akt-VEGF-MMP9 cascade. Administration of H <sub>2</sub> S donors has potential as a novel modality to improve the safety of tPA following the stroke.
Targets(IC50)	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)
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## 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.

Reference

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

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