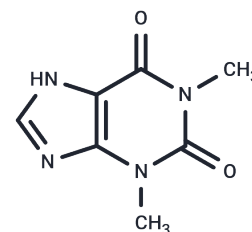


## Theophylline

## Chemical Properties

CAS No. :	58-55-9
Formula:	C7H8N4O2
Molecular Weight:	180.16
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	Theophylline (1,3-Dimethylxanthine) is a methyl xanthine derivative from tea with diuretic, smooth muscle relaxant, bronchial dilation, cardiac, and central nervous system stimulant activities. It inhibits the 3', 5'-cyclic nucleotide phosphodiesterase that degrades cyclic AMP, thus potentiating the actions of agents that act through adenylyl cyclases and cyclic AMP.
Targets(IC50)	Apoptosis,Endogenous Metabolite,HDAC,Adenosine Receptor,Autophagy,Interleukin, PDE,TNF

## Solubility Information

Solubility	DMSO: 16.83 mg/mL (93.42 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: 1 mg/mL (5.55 mM),Sonication is recommended. <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

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	1mg	5mg	10mg
1 mM	5.5506 mL	27.7531 mL	55.5062 mL
5 mM	1.1101 mL	5.5506 mL	11.1012 mL
10 mM	0.5551 mL	2.7753 mL	5.5506 mL
50 mM	0.111 mL	0.5551 mL	1.1101 mL

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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

Philipp S, et al. Cardiovasc Res. 2006 May 1;70(2):308-14.

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