Data Sheet (Cat.No.T0625)

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Theobromine

Chemical Properties

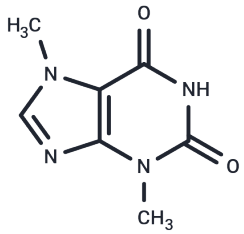
CAS No. : 83-67-0

Formula: C7H8N4O2

Molecular Weight: 180.16

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Theobromine (3,7-Dimethylxanthine), a xanthine alkaloid, is used as a bronchodilator and as a vasodilator.
Targets(IC50)	Endogenous Metabolite,PDE,Adenosine Receptor
In vitro	Theobromine (3,7-Dimethylxanthine) is a xanthine alkaloid that is used as a bronchodilator and as a vasodilator. [1] It has a weaker diuretic activity than theophylline and is also a less powerful stimulant of smooth muscle. [2] Unlike caffeine, Theobromine has practically no stimulant effect on the central nervous system. In contrast, It may improve mood and cognition via peripheral physiological changes. [3] It was formerly used as a diuretic and in the treatment of angina pectoris and hypertension. [4]
In vivo	LD50: Rabbits >200 mg/kg (i.g.) [5]

Solubility Information

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

Preparing Stock Solutions

	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

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

McGovern T, et al. J Clin Invest, 1936, 15(1), 11-16.
Kaur J, et al. J Inorg Biochem, 1992, 48(4), 305-310.

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