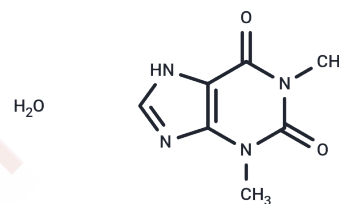


Theophylline monohydrate

Chemical Properties

CAS No. :	5967-84-0
Formula:	C ₇ H ₈ N ₄ O ₂ ·H ₂ O
Molecular Weight:	198.18
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Theophylline monohydrate (Quibron) appears to inhibit phosphodiesterase and prostaglandin production, regulate calcium flux and intracellular calcium distribution, and antagonize adenosine. Theophylline monohydrate is a natural alkaloid derivative of xanthine isolated from the plants <i>Camellia sinensis</i> and <i>Coffea arabica</i> . Physiologically, this agent relaxes the bronchial smooth muscle, produces vasodilation (except in cerebral vessels), stimulates the CNS, stimulates the cardiac muscle, induces diuresis, and increases gastric acid secretion; it may also suppress inflammation and improve contractility of the diaphragm.
Targets(IC50)	HDAC, Adenosine Receptor, PDE

Solubility Information

Solubility	DMSO: 12 mg/mL (60.55 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	5.0459 mL	25.2296 mL	50.4592 mL
5 mM	1.0092 mL	5.0459 mL	10.0918 mL
10 mM	0.5046 mL	2.523 mL	5.0459 mL
50 mM	0.1009 mL	0.5046 mL	1.0092 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

Nantwi KD, et al. J Spinal Cord Med. 2003 Winter;26(4):364-71.

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