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DATASHEET

Theophylline

Product overview

Name	Theophylline
Cat No	HB2849
Biological action	Antagonist
Purity	>98%
Description	Adenosine receptor antagonist

Biological Data

Biological description	Adenosine receptor antagonist and cyclic phosphodiesterase inhibitor. Shows bronchodilatory, cardiostimulatory, anti-inflammatory and immunomodulatory actions.
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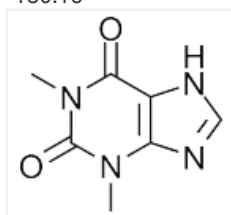
Solubility & Handling

Storage instructions	-20 °C
Solubility overview	Soluble in water (25mM) and DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	3,7-Dihydro-1,3-dimethyl-1H-purine-2,6-dione
Molecular Weight	180.16

Chemical structure



Molecular Formula	C ₇ H ₈ N ₄ O ₂
CAS Number	58-55-9
PubChem identifier	2153
SMILES	O=C1C2=C(N=CN2)N(C)C(N1C)=O
InChiKey	ZFXYFBGIUFBOJW-UHFFFAOYSA-N

References

Theophylline is an antagonist of adenosine in human forearm arterioles

Taddei et al (1991) Am J Hypertens. 4

PubMedID [2043303](#)

Theophylline and selective PDE inhibitors as bronchodilators and smooth muscle relaxants

