

Product Data Sheet

Product Name: 3-Methylxanthine

Cat. No.: GC30635

Chemical Properties

Cas. No. 1076-22-8

SMILES O=C1N(C)C2=C(N=CN2)C(N1)=O

Formula C6H6N4O2 M.Wt 166.14

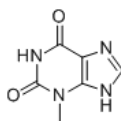
Solubility 1M NaOH : 50 mg/mL (300.95 mM; ultrasonic and adjust pH to 11 with 1M NaOH); DMSO : 2.61 mg/mL (15.71 mM; Need ultrasonic); H₂O : < 0.1 mg/mL (insoluble)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

3-Methylxanthine, a xanthine derivative, is a cyclic guanosine monophosphate (GMP) inhibitor, with an IC₅₀ of 920 µM on guinea-pig isolated trachealis muscle.

Caution: Product has not been fully validated for medical applications. For research use only.

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[1]. Tanaka H, et al. Inhibition of cyclic GMP phosphodiesterase by xanthine derivatives relaxes guinea-pig trachealis smooth muscle. Clin Exp Pharmacol Physiol. 1991 Mar;18(3):163-8. [2]. Yamamoto K, et al. Neurotoxic convulsions induced by theophylline and its metabolites in mice. Biol Pharm Bull. 1996 Jun;19(6):869-72.

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