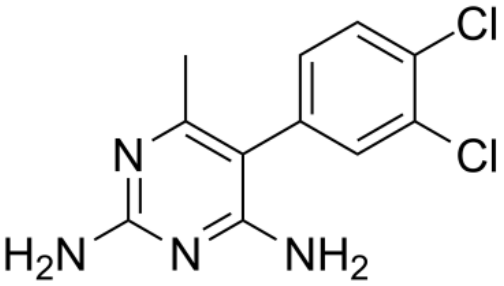
Product Data Sheet

Product Name: Metoprine
Cat. No.: GC61058

Chemical Properties

Cas. No.	7761-45-7		
SMILES	CC1=C(C(N)=NC(N)=N1)C2=CC=C(C(Cl)=C2)Cl		
Formula	$C_{11}H_{10}Cl_2N_4$	M.Wt	269.13
Solubility	DMSO : 20.83 mg/mL (77.40 mM; ultrasonic and warming and heat to 60°C)	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

Metoprine (BW 197U) is a potent histamine N-methyltransferase (HMT) inhibitor. Metoprine, a diaminopyrimidine derivative, can cross the blood-brain barrier and increase brain histamine levels by inhibiting HMT[1][2]. Metoprine is an antifolate and antitumor agent[3].

Caution: Product has not been fully validated for medical applications. For research use only.
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Metoprine (BW 197U; 2-10 mg/kg; IP) ameliorates the memory deficits induced by nucleus basalis magnocellularis (NBM) lesions in a dose-dependent manner[2].Intraperitoneal administration of Metoprine produces various behavioral effects, including decreases in food intake and increases in water consumption[1]. Animal Model: Male Sprague-dawley rats (200-280g)[2]

[1]. Junichi Kitanaka, et al. Brain Histamine N-Methyltransferase As a Possible Target of Treatment for Methamphetamine Overdose. Drug Target Insights. 2016 Mar 2;10:1-7. [2]. Zhong Chen, et al. Effects of brain histamine on memory deficit induced by nucleus basalis-lesion in rats. Acta Pharmacol Sin. 2002 Jan;23(1):66-70. [3]. John R Horton, et al. Structural basis for inhibition of histamine N-methyltransferase by diverse drugs. J Mol Biol. 2005 Oct 21;353(2):334-344.

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