# Data Sheet (Cat.No.T4904)



## 1-Methylguanidine hydrochloride

Chemical Propert	ies		
CAS No. :	21770-81-0		H <sub>3</sub> C
Formula:	C2H8ClN3		ٌ <b>۱</b>
Molecular Weight:	109.56	HCI	
Appearance: 🦲	no data available		NH <sub>2</sub>
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year		ND2

## **Biological Description**

Description	Methylguanidine (MG) is a guanidine compound deriving from protein catabolism. It is also a product of putrefaction. Methylguanidine is a suspected uraemic toxin that accumulates in renal failure, however it also exhibits anti-inflammatory effects. Methylguanidine is synthesized from creatinine concomitant with the synthesis of hydrogen peroxide from endogenous substrates in peroxisomes. Recent evidence suggests that methylguanidine significantly inhibits iNOS activity and TNF- release. This means that methylguandine can attenuate the degree of inflammation and tissue damage associated with endotoxic shock.
Targets(IC50)	Others,Endogenous Metabolite

Solubility Information	
Solubility	DMSO: 55 mg/mL (502.01 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)

#### Preparing Stock Solutions

<u> </u>	1mg	5mg	10mg			
1 mM	9.1274 mL	45.6371 mL	91.2742 mL			
5 mM	1.8255 mL	9.1274 mL	18.2548 mL			
10 mM	0.9127 mL	4.5637 mL	9.1274 mL			
50 mM	0.1825 mL	0.9127 mL	1.8255 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

Silwood CJ, Lynch E, Claxson AW, Grootveld MC: 1H and (13)C NMR spectroscopic analysis of human saliva. J Dent Res. 2002 Jun;81(6):422-7.

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