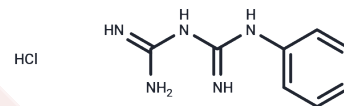


1-Phenylbiguanide HCl

Chemical Properties

CAS No. :	55-57-2
Formula:	C ₈ H ₁₂ ClN ₅
Molecular Weight:	213.67
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	1-Phenylbiguanide HCl, as 5-HT ₃ receptor agonists (3-100 μM, pEC ₅₀ 5.05±0.06), acutely increased XII (hypoglossal) burst frequency and regularity, and decreased bursts/episode. 1-Phenylbiguanide HCl produced a dose-related (10-500 microM) increase in the release of dopamine (280-2000%). When nomifensine (5 microM) was included in the Ringer solution, the effect of 1-Phenylbiguanide HCl on the release of dopamine was ameliorated or inhibited.
Targets(IC ₅₀)	5-HT Receptor

Solubility Information

Solubility	DMSO: 40 mg/mL (187.2 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	4.6801 mL	23.4006 mL	46.8011 mL
5 mM	0.936 mL	4.6801 mL	9.3602 mL
10 mM	0.468 mL	2.3401 mL	4.6801 mL
50 mM	0.0936 mL	0.468 mL	0.936 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Mair ID, et al. Pharmacological characterization of a rat 5-hydroxytryptamine type3 receptor subunit (r5-HT3A(b)) expressed in *Xenopus laevis* oocytes. *Br J Pharmacol*. 1998 Aug;124(8):1667-74.

Ataee R, et al. Study of 5HT3 and HT4 receptor expression in HT29 cell line and human colon adenocarcinoma tissues. *Arch Iran Med*. 2010 Mar;13(2):120-5.

de Vries A, et al. Characterisation of c-Fos expression in the central nervous system of mice following right atrial injections of the 5-HT3 receptor agonist Phenylbiguanide. *Auton Neurosci*. 2005 Dec 30;123(1-2):62-75.

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