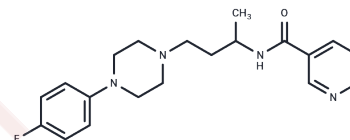


Niaprazine

Chemical Properties

CAS No. : 27367-90-4
 Formula: C₂₀H₂₅N₄O
 Molecular Weight: 356.44
 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	Niaprazine is a histamine H1-receptor antagonist exhibiting significant sedative properties.
Targets(IC50)	5-HT Receptor, Adrenergic Receptor, Histamine Receptor
In vitro	Niaprazine demonstrates a low affinity for the vesicular monoamine transporter as well as D2, α 2, β , H1, and mACh receptors. Notably, the (+)stereoisomer of Niaprazine shows a significantly higher affinity for α 1 (K _i = 77 nM) and 5-HT ₂ (K _i = 25 nM) binding sites, whereas it is poorly recognized by 5-HT _{1A} and 5-HT _{1B} binding sites[2].
In vivo	Niaprazine (60 mg/kg; i.p.; once) treatment increases rat brain 5-hydroxyindole acetic acid (5-HIAA) concentrations 30 minutes post-treatment but reduces them 3-8 hours after treatment. Niaprazine also temporarily depletes rat brain noradrenaline (NA) and dopamine (DA) levels[3]. Animal Model: Male Sprague-Dawley rats (150-200 g)[3].

Solubility Information

Solubility	DMSO: 100 mg/mL (280.55 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 1 mg/mL (2.81 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8055 mL	14.0276 mL	28.0552 mL
5 mM	0.5611 mL	2.8055 mL	5.611 mL
10 mM	0.2806 mL	1.4028 mL	2.8055 mL
50 mM	0.0561 mL	0.2806 mL	0.5611 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

P G Rossi, et al. Niaprazine in the treatment of autistic disorder. *J Child Neurol*. 1999 Aug;14(8):547-50.

P E Keane, et al. The effect of niaprazine on the turnover of 5-hydroxytryptamine in the rat brain. *Neuropharmacology*. 1982 Feb;21(2):163-9.

D Scherman, et al. Molecular pharmacology of niaprazine. *Prog Neuropsychopharmacol Biol Psychiatry*. 1988;12(6):989-1001.

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