

Ilaprazole sodium hydrate

Chemical Properties

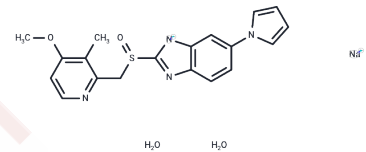
CAS No. : 2322264-11-7

Formula: C₁₉H₂₁N₄NaO₄S

Molecular Weight: 424.45

Storage: Store at low temperature
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	Ilaprazole (IY-81149) sodium hydrate is an orally active proton pump inhibitor that irreversibly inhibits H ⁺ /K ⁺ -ATPase in rabbit parietal cells with a dose-dependent IC ₅₀ of 6 μM. It is used in gastric ulcer research and acts as a potent inhibitor of T-lymphokine-activated killer cell-originated protein kinase (TOPK) [1] [2].
Targets(IC ₅₀)	Proton pump, TOPK
In vitro	In rabbit parietal cell preparations, Ilaprazole sodium hydrate irreversibly inhibits H ⁺ /K ⁺ -ATPase in a dose-dependent manner, with an IC ₅₀ for pump inhibitory activity of 6.0 × 10 ⁽⁻⁶⁾ mol/L at pH 7.4[1].
In vivo	In male SD rats (after pylorus ligation), Ilaprazole sodium hydrate (3, 10, 30 mg/kg; intraduodenally) significantly inhibits gastric acid secretion and volume[1].

Solubility Information

Solubility	DMSO: 4 mg/mL (9.42 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
------------	--

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.356 mL	11.780 mL	23.5599 mL
5 mM	0.4712 mL	2.356 mL	4.712 mL
10 mM	0.2356 mL	1.178 mL	2.356 mL
50 mM	0.0471 mL	0.2356 mL	0.4712 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

Kwon D, et al. Effects of IY-81149, a newly developed proton pump inhibitor, on gastric acid secretion in vitro and in vivo. *Arzneimittelforschung*. 2001;51(3):204-213.

Zheng M, et al. Proton pump inhibitor ilaprazole suppresses cancer growth by targeting T-cell-originated protein kinase. *Oncotarget*. 2017;8(24):39143-39153.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481