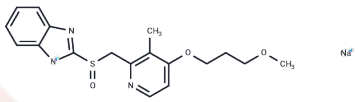
Data Sheet (Cat.No.T1651)

TargetMol

Rabeprazole sodium

Chemical Properties



CAS No. : 117976-90-6

Formula: C18H20N3NaO3S

Molecular Weight: 381.42

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	Rabeprazole sodium (Habeprazole Sodium) is a 4-(3-methoxypropoxy)-3-methylpyridinyl derivative of timoprazole that is used in the therapy of stomach ulcers and Zollinger-Ellison syndrome. The drug inhibits H(+)-K(+)-exchanging ATPase which is found in gastric parietal cells.
Targets(IC50)	Apoptosis,Proton pump,Antibacterial
In vitro	Administration of rabeprazole leads to a marked decrease in the viability of MKN-28 cells. Exposure to rabeprazole induces significant apoptosis in AGS cells. Rabeprazole completely inhibits the phosphorylation of ERK 1/2 in the MKN-28 cells, whereas the same effect is not observed in either the KATO III or MKN-45 cells. Rabeprazole is able to efficaciously inhibit the phosphorylation of ERK 1/2 in the gastric cancer cells.Thus, rabeprazole can attenuate the cell viability of human gastric cancer cells through inactivation of the ERK1/2 signaling pathway[2].
In vivo	Rabeprazole does not appear to exacerbate bone metabolic disorders in gastrectomized rats, but rather ameliorates the TG-induced BMD decrease[1].
Cell Research	Rabeprazole is administrated to three gastric cancer cell lines, KATO III, MKN-28 and MKN-45, at a dosage of 0.2 mM for 16 h. The viability of these cells is determined by a trypan blue exclusion assay.(Only for Reference)

Solubility Information

Solubility	DMSO: 58.82 mg/mL (154.21 mM),Sonication is recommended. H2O: 1.34 mg/mL (3.51 mM),Sonication is recommended. Ethanol: 71 mg/mL (186.15 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: 2 mg/mL (5.24 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6218 mL	13.1089 mL	26.2178 mL
5 mM	0.5244 mL	2.6218 mL	5.2436 mL
10 mM	0.2622 mL	1.3109 mL	2.6218 mL
50 mM	0.0524 mL	0.2622 mL	0.5244 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

Yamasaki Y, et al. Biomed Rep. 2016, 5(1):118-124.
Gu M, et al. Oncol Lett. 2014, 8(4):1739-1744.