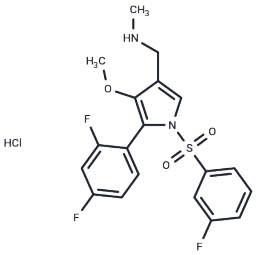
Data Sheet (Cat.No.T10221)

TargetMol

Abeprazan hydrochloride

Chemical Properties



CAS No. :	1902954-87-3
Formula:	C19H18ClF3N2O3S
Molecular Weight:	446.87
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	Abeprazan hydrochloride (Fexuprazan hydrochloride) is an effective reversible potassium-competitive acid blocker with oral activity, inhibiting H+, K+ -atPase by competitive binding to potassium ions without acid activation. Abeprazan hydrochloride is a proton pump inhibitor (PPI) that acts by reducing gastric acid production and is used to treat gastric acid-related disorders, such as gastroesophageal reflux disease (GERD) and peptic ulcers.
Targets(IC50)	Proton pump
In vitro	The mechanism of action of Abeprazan hydrochloride involves reversible binding to H+, K+-ATPase, and, unlike PPIs, it does not require an acidic environment for activation [1].
In vivo	Abeprazan hydrochloride effectively suppresses acid secretion in a dose-responsive manner, demonstrating equal or superior efficacy to vonoprazan, an established P-CAB, across multiple in vivo studies including pylorus-ligated rats, lumen-perfused rat models, and Heidenhain pouch dog models[1].

Solubility Information

Solubility	DMSO: 40 mg/mL (89.51 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 (4.48 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	2.2378 mL	11.1889 mL	22.3779 mL
5 mM	0.4476 mL	2.2378 mL	4.4756 mL
10 mM	0.2238 mL	1.1189 mL	2.2378 mL
50 mM	0.0448 mL	0.2238 mL	0.4476 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

Sunwoo J, et al. Safety, tolerability, pharmacodynamics and pharmacokinetics of DWP14012, a novel potassium-competitive acid blocker, in healthy male subjects. Aliment Pharmacol Ther. 2018 Jul;48(2):206-218.