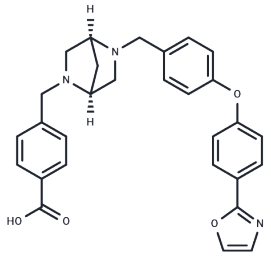
Data Sheet (Cat.No.T3715)

TargetMol

Acebilustat

Chemical Properties



CAS No. : 943764-99-6

Formula: C29H27N3O4

Molecular Weight: 481.54

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	Acebilustat (CTX-4430) (ZK322) is an effective and specific leukotriene B4 hydrolase inhibitor.
Targets(IC50)	Aminopeptidase,LTR
In vitro	Acebilustat, a potent leukotriene A4 hydrolase (LTA4H) inhibitor, demonstrated safety and tolerability in a phase 1 trial[1]. Currently under development as an anti-inflammatory medication, it targets CF among other diseases by inhibiting LTA4H, the crucial enzyme in leukotriene B4 (LTB4) production. LTB4 acts as a powerful chemoattractant and activator for inflammatory immune cells, such as neutrophils[2], thus Acebilustat's mechanism holds promise for mitigating inflammatory responses.
Kinase Assay	Rolapitant is made at a stock concentration of 1 mM in 100% DMSO. For most receptor binding studies, the stock solution is diluted with the final concentrations ranged from 0.1 to 3 μM. Radioligand concentrations for competition binding studies ranged from 0.5 to 1 nM. For species comparison studies, 150 pM [125I]-BHSP is incubated with varying concentrations of protein (10-50 μg) prepared from gerbil, rabbit and monkey striata, and from cells expressing cloned rat, mouse and guinea pig NK receptors[1].

Solubility Information

Solubility	DMSO: 60 mg/mL (124.6 mM),Sonication is recommended. Methanol: 32 mg/mL (66.45 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 (2.08 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	2.0767 mL	10.3834 mL	20.7667 mL
5 mM	0.4153 mL	2.0767 mL	4.1533 mL
10 mM	0.2077 mL	1.0383 mL	2.0767 mL
50 mM	0.0415 mL	0.2077 mL	0.4153 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

Elborn JS, et al. Phase 1 Studies of Acebilustat: Biomarker Response and Safety in Patients with Cystic Fibrosis. Clin Transl Sci. 2016 Nov 2.
Elborn JS, et al. Phase I Studies of Acebilustat: Pharmacokinetics, Pharmacodynamics, Food Effect, and CYP3A Induction. Clin Transl Sci. 2016 Oct 28.