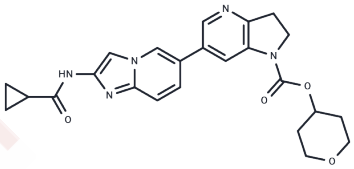
Data Sheet (Cat.No.T87664)

TargetMol

Zharp1-211

Chemical Properties



CAS No. : 2258671-41-7

Formula: C24H25N5O4

Molecular Weight: 447.49

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	Zharp1-211 is a selective and potent RIPK3 inhibitor that significantly reduces the expression of JAK/ stat1-mediated chemokines and MHC class II molecules in IECs, restores intestinal homeostasis, and inhibits graft-versus-host disease (GVHD) for gastrointestinal inflammation.
Targets(IC50)	STAT,RIP kinase
In vitro	Zharp1-211 was highly potent for blocking TNF-induced necroptosis in human colon cancer HT-29 cells and mouse fibroblast L929 cells, and reduced IFN-γ-induced STAT1 activation in mouse intestinal crypt cells by affecting the JAK1/STAT1 pathway. [1]
In vivo	Oral administration of Zharp1-211 (10 mg/kg) starting on day 7 after T cell transplantation significantly reduced GVHD severity and improved survival in multiple mouse models. Zharp-211 alleviated inflammation in the colon, small intestine, liver, and skin, preserved intestinal stem and Paneth cells, suppressed chemokine expression, reduced alloreactive T and $CXCR3^+$ T cells, and inhibited STAT1 activation and necroptosis/apoptosis in the gut. [2]

Solubility Information

Solubility	DMSO: 8 mg/mL (17.88 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2347 mL	11.1734 mL	22.3469 mL
5 mM	0.4469 mL	2.2347 mL	4.4694 mL
10 mM	0.2235 mL	1.1173 mL	2.2347 mL
50 mM	0.0447 mL	0.2235 mL	0.4469 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

Yao, K., Shi, Z., Zhao, F., Tan, C., Zhang, Y., Fan, H., Wang, Y., Li, X., Kong, J., Wang, Q., & Li, D. (2025). RIPK1 in necroptosis and recent progress in related pharmaceutics. Frontiers in Immunology, 16.

Yu X, et al. A novel RIPK1 inhibitor reduces GVHD in mice via a nonimmunosuppressive mechanism that restores intestinal homeostasis. Blood. 2023 Mar 2;141(9):1070-1086.