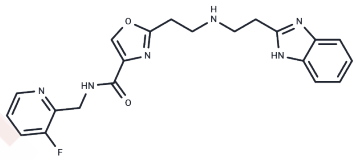
Data Sheet (Cat.No.T39520)

TargetMol

Vamifeport

Chemical Properties



CAS No. : 2095668-10-1

Formula: C21H21FN6O2

Molecular Weight: 408.43

Storage: Keep away from moisture
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	Vamifeport (VIT-2763) is a novel orally active inhibitor that targets iron transport proteins and reduces markers of hemolysis in the SCD Townes model.VIT-2763 improves anemia and erythropoiesis, ameliorates vascular inflammation, and can be studied in β-thalassemia.
Targets(IC50)	Ferroptosis,Ferroportin
In vitro	Treatment with VIT-2763 (20μM) or hepcidin (1μM) for 20 minutes, 1 hour, 3 hours, 6 hours, and 18 hours induced dose-dependent internalization and ubiquitination of iron transporters in MDCK cells[1].
In vivo	VIT-2763 (30, 100 mg/kg; orally twice daily for 36 days) restricted iron availability, ameliorating anemia and iron homeostasis dysregulation in the intermediate β-thalassemia Hbbth3/+ mouse model, improving erythropoiesis and correcting the proportion of myeloid precursors in the spleen of Hbbth3/+ mice[1].

Solubility Information

Solubility	DMSO: 70 mg/mL (171.39 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 (4.9 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	2.4484 mL	12.242 mL	24.484 mL
5 mM	0.4897 mL	2.4484 mL	4.8968 mL
10 mM	0.2448 mL	1.2242 mL	2.4484 mL
50 mM	0.049 mL	0.2448 mL	0.4897 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

Vania Manolova, et al. Oral Ferroportin Inhibitor Ameliorates Ineffective Erythropoiesis in a Model of β-Thalassemia. J Clin Invest. 2019 Dec 9;130(1):491-506.