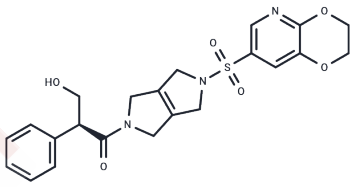
Data Sheet (Cat.No.T39753)

TargetMol

Etavopivat

Chemical Properties



CAS No. : 2245053-57-8

Formula: C22H23N3O6S

Molecular Weight: 457.5

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	Etavopivat is a potent, selective, and orally active activator of erythrocyte pyruvate kinase (PKR) that enhances red blood cell glycolytic flux and energy metabolism, exhibiting strong antisickling effects by improving erythrocyte deformability and reducing hemoglobin polymerization. Etavopivat is therefore widely applied in translational and mechanistic studies of sickle cell disease and other inherited haemoglobinopathies.
Targets(IC50)	Others
In vitro	In human red blood cells (RBCs), treatment with Etavopivat (20 μM) for 4 hours resulted in a significant improvement in hemoglobin-oxygen affinity and a reduction in the Point of Sickling (PoS) metric[1].
In vivo	In a mouse model of Sickle Cell Anemia (SCA), oral administration of Etavopivat (500-1000 mg/kg, daily for 2 weeks) demonstrated robust therapeutic efficacy, significantly improving red blood cell survival rates and increasing hemoglobin levels [1]. Additionally, in a pharmacodynamic study involving Cynomolgus monkeys, oral administration of Etavopivat (3-22 mg/kg) for 5 days exhibited dose-dependent activity. Specifically, at doses of 8 mg/kg and 22 mg/kg, it induced a marked increase in intracellular ATP levels and a reduction in 2,3-DPG levels, confirming its mechanism of action in a non-human primate model [2].

Solubility Information

Solubility	DMSO: 40 mg/mL (87.43 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1858 mL	10.929 mL	21.8579 mL
5 mM	0.4372 mL	2.1858 mL	4.3716 mL
10 mM	0.2186 mL	1.0929 mL	2.1858 mL
50 mM	0.0437 mL	0.2186 mL	0.4372 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

Shrestha A, et al. FT-4202, an oral PKR activator, has potent antisickling effects and improves RBC survival and Hb levels in SCA mice. Blood Adv. 2021 May 11;5(9):2385-2390.
Schroeder P, et al. Etavopivat, a Pyruvate Kinase Activator in Red Blood Cells, for the Treatment of Sickle Cell Disease. J Pharmacol Exp Ther. 2022 Mar;380(3):210-219.