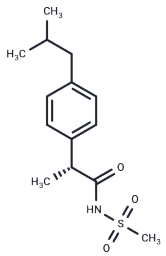
Data Sheet (Cat.No.T4163)

TargetMol

Reparixin

Chemical Properties



CAS No. : 266359-83-5

Formula: C14H21NO3S

Molecular Weight: 283.39

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	Reparixin (Repertaxin) is a potent inhibitor of both CXCL8 receptors CXCR1/2, it inhibits weakly CXCR2-mediated cell migration (IC50=100 nM), whereas it strongly blocks CXCR1-mediated chemotaxis (IC50=1 nM).
Targets(IC50)	CXCR
Cell Research	L1.2 Cell suspension (1.5-3×106 cells/mL) is incubated at 37°C for 15 min in the presence of vehicle or of Reparixin (1 nM-1 μM) and next seeded in triplicates in the upper compartment of the chemotactic chamber. Different agonists are seeded in the lower compartment of the chamber at the following concentrations: 1 nM CXCL8, 0.03 nM fMLP, 10 nM CXCL1, 2.5 nM CCL2, 30 nM C5a. The chemotactic chamber is incubated at 37°C in air with 5% CO2 for 45 min (human PMNs) or 2 h (monocytes). At the end of incubation, the filter is removed, fixed, and stained and five oil immersion fields at high magnification (100×) are counted for each migration well after sample coding. L1.2 migration is evaluated using 5 μM pore size Transwell filters.
Animal Research	C57BL/6J mice (8-10 weeks old/20-25 g) are used. The subcutaneous administration of Reparixin (30 mg/kg) is performed 60 minutes before cerebral ischemia induction. The animals are divided into the following three experimental groups: Sham (i.e., the group in which the arteries are visualized, but there is no occlusion of the middle cerebral artery), Vehicle (i.e., the group pre-treated with the vehicle, phosphate buffer solution, 60 minutes before MCAo) and Reparixin (i.e., the group pre-treated with the drug 60 minutes before MCAo). To evaluate neurological signs secondary to MCAo, the animals are assessed with the SHIRPA battery 24 h after reperfusion.

Solubility Information

Solubility	DMSO: 250 mg/mL (882.18 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (35.29 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.06 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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5287 mL	17.6435 mL	35.2871 mL
5 mM	0.7057 mL	3.5287 mL	7.0574 mL
10 mM	0.3529 mL	1.7644 mL	3.5287 mL
50 mM	0.0706 mL	0.3529 mL	0.7057 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

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Ma Y T, Zheng L, Zhao C W, et al.Interferon-α induces differentiation of cancer stem cells and immunosuppression in hepatocellular carcinoma by upregulating CXCL8 secretion.Cytokine.2024, 177: 156555.
Bertini R, et al. Receptor binding mode and pharmacological characterization of a potent and selective dual CXCR1/CXCR2non-competitive allosteric inhibitor. Br J Pharmacol. 2012 Jan;165(2):436-54.
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