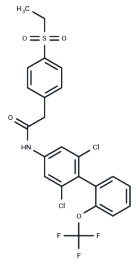
Data Sheet (Cat.No.T7388)

TargetMol

GSK805

Chemical Properties



CAS No. : 1426802-50-7

Formula: C23H18Cl2F3NO4S

Molecular Weight: 532.36

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	GSK805 is a potent, orally bioavailable and CNS-penetrant RORγt inhibitor.
Targets(IC50)	ROR
In vitro	**METHODS**: CD4 T cells (activated under Th17 cell differentiation conditions) were treated with GSK805 (0.5 μM, 4 days). IL-17 and IFNγ production was measured by intracellular cytokine staining. **RESULTS** GSK805 exerted an inhibitory effect on Th17 cell differentiation. [1]
In vivo	**METHODS**: C57BL/6 mice were induced to develop EAE and treated with GSK805 (30 mg/kg, p.o., 14 days). CNS-infiltrating cells were isolated, and IL-17 and IFNγ production was measured by intracellular staining. **RESULTS** GSK805 strongly inhibited Th17 cell responses in the CNS (reduced IFNγIL-17 and IFNγIL-17 T cells), whereas the frequency of TNF-α T cells was not significantly altered). [1] **METHODS**: GSK805 (1, 3 and 10 mg/kg, orally, three times a day) was administered to EAE mice to observe its effects on the mice. **RESULTS** GSK805 can reduce the clinical severity of EAE in a dose-dependent manner. [2]
Cell Research	CD4+CD62LhighCD25? naive CD4+ T cells were purified by FACS sorting following a MACS bead isolation of CD4+ cells. Naive CD4+ cells were activated with plate-bound anti-CD3 (2 μg/ml) and anti-CD28 (2 μg/ml). For Th17 cell differentiation, cultures were supplemented with IL-6 (20 ng/ml) plus TGF-β1 (1 ng/ml), and IL-23 (10 ng/ml) was added after 48 h. RORγt inhibitors or vehicle control DMSO was also included in the cultures. After 96 h, cells were collected for further experiments[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (187.84 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: 10 mg/mL (18.78 mM),Suspension. *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	1.8784 mL	9.3921 mL	18.7843 mL
5 mM	0.3757 mL	1.8784 mL	3.7569 mL
10 mM	0.1878 mL	0.9392 mL	1.8784 mL
50 mM	0.0376 mL	0.1878 mL	0.3757 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

Xiao S, et al. Small-molecule RORγt antagonists inhibit T helper 17 cell transcriptional network by divergent mechanisms. Immunity. 2014 Apr 17;40(4):477-89.
Wang Y, et al. Discovery of Biaryl Amides as Potent, Orally Bioavailable, and CNS Penetrant RORγt Inhibitors. ACS Med Chem Lett. 2015 May 26;6(7):787-92.