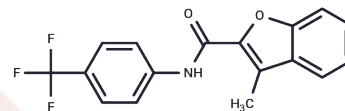


CCR6 antagonist 1

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 588674-64-0 |
| Formula: | C17H12F3NO2 |
| Molecular Weight: | 319.28 |
| 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 | CCR6 antagonist 1, a chemical compound acting as a CCR6 antagonist, effectively inhibits the CCL20/CCR6 axis. Its utility lies in research focused on autoimmune-mediated inflammatory diseases, including inflammatory bowel diseases (IBDs). |
| Targets(IC50) | CCR |
| In vitro | CCR6 antagonist 1 (50 μ M, 3 h) blocks the CCL20-induced CD4+ T cell migration. CCR6 antagonist 1 (30 nM-300 μ M, 20 min) inhibits miniGi recruitment to CCR6 induced by CCL20, and β -arrestin-1 recruitment to CCR6 and CCR5 by CCL20 and CCL5 (5 nM), respectively[1]. |
| In vivo | CCR6 antagonist 1 (1 mg/kg, s.c., twice daily for 3 days) alleviates TNBS-induced inflammatory responses in mice. CCR6 antagonist 1 (1 mg/kg, s.c., twice, before and after zymosan treatment) shows anti-inflammatory effects in Zymosan-induced peritonitis mice[1]. |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 90 mg/mL (281.88 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Corn Oil: 1 mg/mL (3.13 mM),Sonication is recommended. <i>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.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 3.132 mL | 15.6602 mL | 31.3205 mL |
| 5 mM | 0.6264 mL | 3.132 mL | 6.2641 mL |
| 10 mM | 0.3132 mL | 1.566 mL | 3.132 mL |
| 50 mM | 0.0626 mL | 0.3132 mL | 0.6264 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

Maria Grazia Martina, et al. Discovery of small-molecules targeting the CCL20/CCR6 axis as first-in-class inhibitors for inflammatory bowel diseases. *Eur J Med Chem.* 2022 Aug 29;243:114703.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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