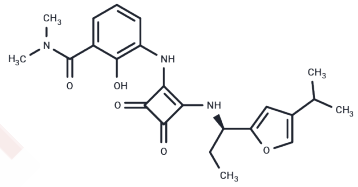
Data Sheet (Cat.No.T16864)

TargetMol

SCH 563705

Chemical Properties



CAS No. : 473728-58-4

Formula: C23H27N3O5

Molecular Weight: 425.48

Storage: Store at low temperature
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	SCH 563705 is an orally available and highly potent CXCR2 and CXCR1 antagonist for the study of acute respiratory syndrome, chronic obstructive pulmonary disease, and inflammation.
Targets(IC50)	CXCR
In vitro	SCH 563705 is a potent oral CXCR2 and CXCR1 antagonist with IC50 values of CXCR2 IC50=1.3 nM, CXCR1 IC50=7.3 nM, and Ki values of CXCR2 Ki=1 nM and CXCR1 Ki=3 nM, respectively.SCH 563705 potently inhibits Gro-a and IL-8 induced human neutrophil migration (CXCR2 IC50=0.5 nM, CXCR1 IC50=37 nM). SCH 563705 effectively inhibited Gro-a and IL-8-induced human neutrophil migration (CXCR2 IC50=0.5 nM, CXCR1 IC50=37 nM). [1] SCH 563705 effectively inhibits mouse CXCR2 (IC50 = 5.2 nM). [2]
In vivo	SCH 563705 has a favorable oral pharmacokinetic profile in rats, mice, monkeys and dogs. [1] Oral administration of 50 mg/kg SCH 563705 to BALB/c female mice decreased the frequency of Ly6G+ Ly6C+ neutrophils in the blood and maintained the level of Ly6GLy6C hi monocytes. [2]

Solubility Information

Solubility	DMSO: 100 mg/mL (235.03 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: 5 mg/mL (11.75 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	2.3503 mL	11.7514 mL	23.5029 mL
5 mM	0.4701 mL	2.3503 mL	4.7006 mL
10 mM	0.235 mL	1.1751 mL	2.3503 mL
50 mM	0.047 mL	0.235 mL	0.4701 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

Chao J, et al. C(4)-alkyl substituted furanyl cyclobutenediones as potent, orally bioavailable CXCR2 and CXCR1 receptor antagonists. Bioorg Med Chem Lett. 2007 Jul 1;17(13):3778-83.
Min SH, et al. Pharmacological targeting reveals distinct roles for CXCR2/CXCR1 and CCR2 in a mouse model of arthritis. Biochem Biophys Res Commun. 2010 Jan 1;391(1):1080-6.