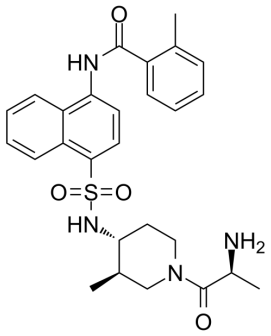
ML604086

Cat. No.:	HY-124416
CAS No.:	850330-18-6
Molecular Formula:	$C_{27}H_{32}N_4O_4S$
Molecular Weight:	508.63
Target:	CCR
Pathway:	GPCR/G Protein; Immunology/Inflammation
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 120 mg/mL (235.93 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.9661 mL	9.8303 mL	19.6607 mL
	5 mM	0.3932 mL	1.9661 mL	3.9321 mL
	10 mM	0.1966 mL	0.9830 mL	1.9661 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 6.25 mg/mL (12.29 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 6.25 mg/mL (12.29 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ML604086 is a selective CCR8 inhibitor, inhibiting CCL1 binding to CCR8 on circulating T-cells. ML604086 inhibits CCL1 mediated chemotaxis and increases in intracellular Ca^{2+} concentrations[1][2].

IC_{50} & Target

CCR8[1][2].

In Vitro

ML604086 (0-100 μM) inhibits CCL1 mediated chemotaxis and increases in intracellular Ca^{2+} concentrations of cell lines stably expressing cyno CCR8 with IC_{50}s of 1.3 μM and 1.0 μM, respectively[2].
ML604086 (10, 30 μM; 64 h) inhibits CCL1 binding to CCR8 on CD4 T-cells, and inhibits the serotonin receptor 5HT1a with the inhibition rate of 30%, 70% at 10, 30 μM respectively[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

ML604086 (1.038 mg/kg; intravenous infusion) shows no effect on airway eosinophilia, pro-inflammatory cytokine production or airway resistance and compliance in Macaca fascicularis[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	3.0-5.0 kg male and female adult Macaca fascicularis (primate modelof asthma)[2]
Dosage:	1.038 mg/kg
Administration:	Intravenous infusion
Result:	Did not effected the Changes in airway resistance and compliance induced by allergen provocation and increasing concentrations of methacholine.

REFERENCES

[1]. James E. Pease, et al. Chemokine Receptors in Allergy, Inflammation, and Infectious Disease. Top Med Chem (2015) 14: 1-40.

[2]. Lin Wang, et al. Antagonism of chemokine receptor CCR8 is ineffective in a primate model of asthma. Thorax 2013;68:506–512.

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