ML 145

Cat. No.: HY-107536

CAS No.: 1164500-72-4

Molecular Formula: $C_{24}H_{22}N_2O_5S_2$

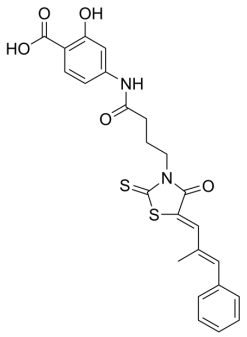
Molecular Weight: 482.57

Target: GPR35; CXCR

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 : 50 mg/mL (103.61 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0722 mL	10.3612 mL	20.7224 mL
	5 mM	0.4144 mL	2.0722 mL	4.1445 mL
	10 mM	0.2072 mL	1.0361 mL	2.0722 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: 5 mg/mL (10.36 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

ML 145 is a selective and competitive human GPR35/CXCR8 antagonist with an IC_{50}/EC_{50} of 20.1 nM. ML 145 has over 1000-fold more selective for GPR35 compared to GPR55 (IC_{50}/EC_{50}=21.7 μM)[1]. ML 145 has no significant activity for GPR35 at either rodent ortholog[2].

IC_{50} & Target

IC50/EC50: 20.1 nM (GPR35), 21.7 μM (GPR55)[1]

In Vitro

ML 145 (10 μM) also fully blocks internalization of human FLAG-GPR35-eYFP in response to varying concentrations of Zaprinast, Cromolyn disodium, and Pamoate[2].

ML 145 is either without effect (mouse) or displays only a small and apparently noncompetitive inhibitory effect (rat) at the rodent orthologs[2].

ML 145 acts as a competitive antagonist for a number of agonists at human GPR35 and has an IC_{50} value against EC_{80} concentrations of various GPR35 agonists in the region of 20 nM[1].

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

REFERENCES

[1]. Heynen-Genel S, et al. Selective GPR35 Antagonists - Probes 1 & 2. National Center for Biotechnology Information (US); 2010-2010 Feb 28.

[2]. Laura Jenkins, et al. Antagonists of GPR35 display high species ortholog selectivity and varying modes of action. J Pharmacol Exp Ther. 2012 Dec;343(3):683-95.

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