

ML 145

Chemical Properties

CAS No. : 1164500-72-4

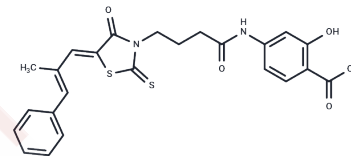
Formula: C₂₄H₂₂N₂O₅S₂

Molecular Weight: 482.57

Store at low temperature

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	ML 145 is a selective and potent antagonist of human GPR35, with no significant activity against GPR35 in any of its immediate rodent homologs. ML 145 has potential anti-inflammatory activity for the study of immunoinflammation. ML 145 is a novel non-steroidal anti-inflammatory agent for the study of rheumatoid arthritis.
Targets(IC50)	CXCR, GPCR
In vitro	ML 145 is a selective and competitive human antagonist of GPR35/CXCR8 with an IC ₅₀ /EC ₅₀ value of 20.1 nM, compared to GPR35, which is over 1000-fold more selective than GPR55, which has an IC ₅₀ /EC ₅₀ value of 21.7 μM. [1] In addition, ML 145 at 10 μM completely blocked the internalization of human FLAG-GPR35-eYFP in response to various concentrations of Zaprinas, Cromolyn disodium and Pamoate. In rodents, ML 145 was ineffective in mice and showed only a slight non-competitive inhibitory effect in rats. [2]

Solubility Information

Solubility	DMSO: 40 mg/mL (82.89 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.0414 mL	0.2072 mL	0.4144 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

Heynen-Genel S, et al. Selective GPR35 Antagonists - Probes 1 & 2. 2010 Feb 28 [updated 2010 Oct 4]. In: Probe Reports from the NIH Molecular Libraries Program [Internet]. Bethesda (MD): National Center for Biotechnology Information (US); 2010-.

Jenkins L, 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.

Alkondon M, et al. Functional G-protein-coupled receptor 35 is expressed by neurons in the CA1 field of the hippocampus. *Biochem Pharmacol*. 2015 Feb 15;93(4):506-18.

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481