# CID 2745687

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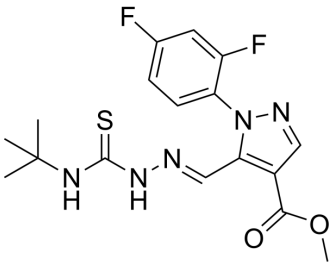
| **Cat. No.:** | HY-107537 |
| **CAS No.:** | 264233-05-8 |
| **Molecular Formula:** | $C_{17}H_{19}F_2N_5O_2S$ |
| **Molecular Weight:** | 395.43 |
| **Target:** | GPR35 |
| **Pathway:** | GPCR/G Protein |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 125 mg/mL (316.11 mM; Need ultrasonic)

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.5289 mL | 12.6445 mL | 25.2889 mL |
| 5 mM | 0.5058 mL | 2.5289 mL | 5.0578 mL |
| 10 mM | 0.2529 mL | 1.2644 mL | 2.5289 mL |

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.26 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

CID 2745687 acts as a specific, reversible and competitive GPR35 antagonist with a $K_i$ of 12.8 nM[1].

**In Vitro**

For ERK1/2 phosphorylation with 1 μM Pamoic acid as the agonist, the CID 2745687 (CID2745687) $K_i$ is 18 nM[1]. CID 2745687 (CID-2745687) is a potent antagonist in β-arrestin-2 interaction assays only at human GPR35[2].
Using the BRET-based GPR35-β-arrestin-2 interaction assay and an $EC_{80}$ concentration of Zaprinast (20 μM) as agonist, CID 2745687 behaved as a moderately potent, concentration-dependent antagonist at human GPR35 with $pIC_{50}$=6.70±0.09[2].
CID 2745687 ($pIC_{50}$=6.27±0.08) fully reverses the agonist action of Cromolyn disodium [2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

CID 2745687 (CID2745687; 1 mg/kg; administrated orally every day for the last 4 weeks), a specific GPR35 antagonist, reverses Lodoxamide-mediated anti-fibrotic effects[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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| Animal Model: | Six-week-old male C57BL/6 mice[3] |
| Dosage: | 1 mg/kg |
| Administration: | Oral administration, every day for 4 weeks |
| Result: | Inhibited Lodoxamide-mediated protective effects. |

## REFERENCES


[1]. Pingwei Zhao, et al. Targeting of the orphan receptor GPR35 by pamoic acid: a potent activator of extracellular signal-regulated kinase and β-arrestin2 with antinociceptive activity. Mol Pharmacol. 2010 Oct;78(4):560-8.

[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.

[3]. Mi-Jeong Kim, et al. Lodoxamide Attenuates Hepatic Fibrosis in Mice: Involvement of GPR35. Biomol Ther (Seoul). 2019 Jun 13;28(1):92-97.





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