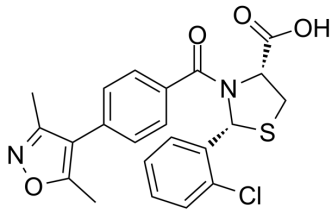
TUG-1375

Cat. No.:	HY-112813
CAS No.:	2247372-59-2
Molecular Formula:	$C_{22}H_{19}ClN_2O_4S$
Molecular Weight:	442.92
Target:	Free Fatty Acid Receptor
Pathway:	GPCR/G Protein
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 : 125 mg/mL (282.22 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2577 mL	11.2887 mL	22.5774 mL
5 mM	0.4515 mL	2.2577 mL	4.5155 mL
10 mM	0.2258 mL	1.1289 mL	2.2577 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: ≥ 2.25 mg/mL (5.08 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.25 mg/mL (5.08 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.25 mg/mL (5.08 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TUG-1375 is an agonist of free fatty acid receptor 2 (FFA2/GPR43), with a pK_i of 6.69. TUG-1375 is inactive on FFA3, FFA4, PPARα, PPARγ, PPARδ, LXRα or LXRβ[1].

IC_{50} & Target

pKi: 6.69 (FFA2)[1]

In Vitro

TUG-1375 exhibits pEC_{50} of 7.11 in the cAMP FFA2 assay, also active on murine FFA2 orthologue (pEC_{50}, 6.44 ± 0.13 in the cAMP assay)[1].

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

CUSTOMER VALIDATION

- Br J Pharmacol. 2022 Jan;179(1):159-178.

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REFERENCES

[1]. Hansen AH, et al. Discovery of a Potent Thiazolidine Free Fatty Acid Receptor 2 Agonist with Favorable Pharmacokinetic Properties. J Med Chem. 2018 Nov 8;61(21):9534-9550.

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