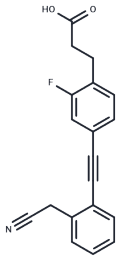
Data Sheet (Cat.No.TQ0241)

TUG-770

Chemical Properties



CAS No. : 1402601-82-4

Formula: C19H14FNO2

Molecular Weight: 307.32

Storage: Store at low temperature
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	TUG-770 is a GPR40/FFA1 agonist with potential anti-inflammatory activity.TUG-770 can be used to study type 2 diabetes, dementia, and Alzheimer's disease.
Targets(IC50)	GPCR
In vitro	TUG-770 shows good stability towards human liver microsomes (HLM) and demonstrates good permeability in the Caco-2 cell assay[1].
In vivo	In C57BL/6 male mice (5-6 weeks of age) fed a 60% fat diet D12492, TUG-770 (20 mg/kg; oral administration; daily; for 28 days) significantly improved glucose tolerance[1].

Solubility Information

Solubility	H2O: Insoluble, DMSO: 100 mg/mL (325.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (10.74 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2539 mL	16.2697 mL	32.5394 mL
5 mM	0.6508 mL	3.2539 mL	6.5079 mL
10 mM	0.3254 mL	1.627 mL	3.2539 mL
50 mM	0.0651 mL	0.3254 mL	0.6508 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

Christiansen E, et al. Discovery of TUG-770: A Highly Potent Free Fatty Acid Receptor 1 (FFA1/GPR40) Agonist for Treatment of Type 2 Diabetes. ACS Med Chem Lett. 2013 May 9;4(5):441-445.
Christiansen E,et al. Discovery of TUG-770: A Highly Potent Free Fatty Acid Receptor 1 (FFA1/GPR40) Agonist for Treatment of Type 2 Diabetes. ACS Med Chem Lett. 2013 May 9;4(5):441-445.

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