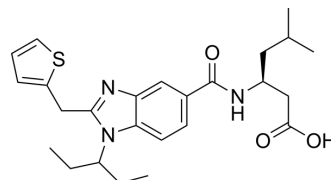


CMF019

Cat. No.:	HY-103080		
CAS No.:	1586787-08-7		
Molecular Formula:	C ₂₅ H ₃₃ N ₃ O ₃ S		
Molecular Weight:	455.61		
Target:	Apelin Receptor (APJ)		
Pathway:	GPCR/G Protein		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (109.74 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.1949 mL	10.9743 mL	21.9486 mL
		5 mM	0.4390 mL	2.1949 mL	4.3897 mL
10 mM		0.2195 mL	1.0974 mL	2.1949 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: ≥ 2.5 mg/mL (5.49 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (5.49 mM); Suspended solution; Need ultrasonic				
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.49 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	CMF019 is a potent and small molecule agonist at Apelin receptor (APJ) with G protein bias. CMF019 binds to APJ with pKi values of 8.58, 8.49 and 8.71 for human, rat, and mouse, respectively. CMF019 mimics the beneficial cardiovascular actions of apelin in rodents ^[1] . Apelin receptor (APJ) is a G protein-coupled receptor (GPCR) activated by the endogenous peptide apelin ^[2] .
IC ₅₀ & Target	pKi: 8.58 (human Apelin receptor) ; 8.49 (rat Apelin receptor); 8.71 (mouse Apelin receptor) ^[1] .

REFERENCES

- [1]. Trifonov L, et al. An Expedient Synthesis of CMF-019: (S)-5-Methyl-3-[1-(pentan-3-yl)-2-(thiophen-2-ylmethyl)-1H-benzo[d]imidazole-5-carboxamido]hexanoic Acid, a Potent Apelin Receptor (APJ) Agonist. *Med Chem.* 2018;14(7):688-694.
- [2]. Read C, et al. Cardiac action of the first G protein biased small molecule apelin agonist. *Biochem Pharmacol.* 2016 Sep 15;116:63-72.
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Caution: Product has not been fully validated for medical applications. For research use only.

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