

Product Data Sheet

FFA3 agonist 1

Cat. No.:HY-136896CAS No.:886358-51-6Molecular Formula: $C_{22}H_{22}N_2O_3$ Molecular Weight:362.42

Target: Free Fatty Acid Receptor

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: 25 mg/mL (68.98 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.7592 mL	13.7961 mL	27.5923 mL
	5 mM	0.5518 mL	2.7592 mL	5.5185 mL
	10 mM	0.2759 mL	1.3796 mL	2.7592 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 (6.90 mM); Clear solution

BIOLOGICAL ACTIVITY

Description FFA3 agonist 1 is an agonist of free fatty acid receptor 3 (FFA3). FFA3 agonist 1 regulates the health effect of intestinal microbiota by activating FFA3^[1].

In Vitro

FFA3 agonist 1 $(0.01-100 \,\mu\text{M})$ increases the incorporation of [35 S]GTPgS and the generation of pERK1/2, reduces the production of cAMP in Flp-In T-REx 293 cells that induced the expression of enhanced yellow fluorescent protein (eYFP) human free fatty acid receptor 3 (hFFA3)[2].

FFA3 agonist 1 (0.1-100 μ M) increases the incorporation of [35 S]GTPgS in Flp-In T-REx 293 cells induced to express hFFA3, mouse FFA3 (mFFA3) and rat FFA3 (rFFA3)[2].

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

REFERENCES

[1]. Ulven ER, et al. Structure-Activity Relationship Studies of Tetrahydroquinolone Free Fatty Acid Receptor 3 Modulators. J Med Chem. 2020 Apr 9;63(7):3577-3595.
[2]. Hudson BD, Christiansen E, Murdoch H, Jenkins L, Hansen AH, Madsen O, Ulven T, Milligan G. Complex pharmacology of novel allosteric free fatty acid 3 receptor ligands. Mol Pharmacol. 2014 Aug;86(2):200-10.
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