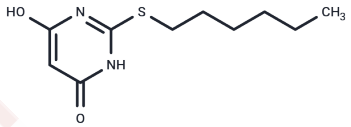
Data Sheet (Cat.No.T36634)

TargetMol

ZQ-16

Chemical Properties



CAS No. : 376616-73-8

Formula: C10H16N2O2S

Molecular Weight: 228.31

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	ZQ-16 is a potent and highly selective agonist for the G protein-coupled receptor GPR84, demonstrating a half-maximal effective concentration (EC50) of 0.213 μM, and it activates multiple downstream signaling pathways including calcium mobilization, inhibition of cAMP accumulation, phosphorylation of extracellular signal-regulated protein kinase 1/2 (ERK1/2), receptor desensitization and internalization, and receptor-β-arrestin interaction, making it a useful tool compound for studying GPR84 function and a candidate for further optimization.
Targets(IC50)	GPCR
In vitro	Treatment of HEK293 cells expressing GPR84 with ZQ-16 (10 μM, 5 minutes) induces phosphorylation of ERK1/2 in the cells. [1]

Solubility Information

Solubility	DMSO: 20 mg/mL (87.6 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: 2 mg/mL (8.76 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	4.380 mL	21.900 mL	43.8001 mL
5 mM	0.876 mL	4.380 mL	8.760 mL
10 mM	0.438 mL	2.190 mL	4.380 mL
50 mM	0.0876 mL	0.438 mL	0.876 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

Liu et al (2016) Design and synthesis of 2-alkylpyrimidine-4,6-diol and 6-alkylpyridine-2,4-diol as potent GPR84 agonists. ACS Med.Chem.Lett. 7 579

Qing Zhang, et al. Discovery and Characterization of a Novel Small-Molecule Agonist for Medium-Chain Free Fatty Acid Receptor G Protein-Coupled Receptor 84. J Pharmacol Exp Ther. 2016 May;357(2):337-44.