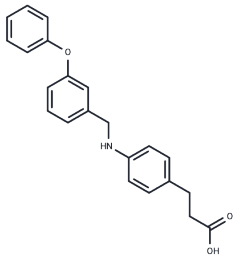
Data Sheet (Cat.No.T1781)

TargetMol

GW9508

Chemical Properties



CAS No. : 885101-89-3

Formula: C22H21NO3

Molecular Weight: 347.41

Storage: 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	GW9508(GW 9508) is a potent and selective agonist for FFA1 (GPR40), stimulates insulin secretion in a glucose-sensitive manner.
Targets(IC50)	GPCR,Potassium Channel
In vivo	In MIN6 cells, GW9508 stimulates insulin secretion in a dose-dependent manner and enhances insulin secretion mediated by KCl. In rat β-cells, GW9508 induces hyperpolarization and the opening of KATP channels. In HaCaT cells, GW9508 inhibits the expression of IL-11, IL-24, and IL-33 induced by TNF-α and IFN-γ. Additionally, in normal human epidermal keratinocytes, GW9508 suppresses the production of CCL5 and CXCL10.

Solubility Information

Solubility	Ethanol: 34.7 mg/mL (99.88 mM),Sonication is recommended. DMSO: 150 mg/mL (431.77 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: 4 mg/mL (11.51 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	2.8784 mL	14.3922 mL	28.7844 mL
5 mM	0.5757 mL	2.8784 mL	5.7569 mL
10 mM	0.2878 mL	1.4392 mL	2.8784 mL
50 mM	0.0576 mL	0.2878 mL	0.5757 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

Briscoe CP, et al. Br J Pharmacol, 2006, 148(5), 619-628.
Li M, Wu Y, Qiu J, et al.Huangqin Decoction ameliorates ulcerative colitis by regulating fatty acid metabolism to mediate macrophage polarization via activating FFAR4-AMPK-PPARα pathway.Journal of Ethnopharmacology. 2023: 116430.
Zhang L, Zhang Z, Wu Y, et al.Activation of free fatty acid receptors, FFAR1 and FFAR4, ameliorates ulcerative colitis by promote fatty acid metabolism and mediate macrophage polarization.International Immunopharmacology.2024, 130: 111778.
Zhao YF, et al. J Endocrinol, 2008, 198(3), 533-540.
Fujita T, et al. J Invest Dermatol, 2011, 131(8), 1660-1667.