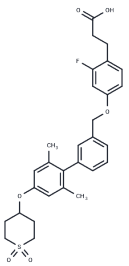
Data Sheet (Cat.No.T68535)

TargetMol

TP-051

Chemical Properties



CAS No. : 858097-86-6

Formula: C29H31FO6S

Molecular Weight: 526.62

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	TP-051 is a potent and selective FFAR1 agonist exhibiting a Ki of 16 nM for human FFAR1, with demonstrated ability to enhance insulin secretion in rat insulinoma cells. TP-051 is widely used as a chemical probe for studying free-fatty-acid receptor-mediated pathways in type 2 diabetes and metabolic research.
Targets(IC50)	GPCR
In vitro	In the presence of 11 mM Vitis vinifera sugar, TP-051 (compound 31) acted on INS-1 cells for 2 hours at concentrations ranging from 0.01-10 μM, demonstrating a dose-dependent promotion of insulin secretion. When the concentration of this compound exceeded 0.1 μM, a statistically significant increase in insulin secretion was observed [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8989 mL	9.4945 mL	18.989 mL
5 mM	0.3798 mL	1.8989 mL	3.7978 mL
10 mM	0.1899 mL	0.9495 mL	1.8989 mL
50 mM	0.038 mL	0.1899 mL	0.3798 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

Mikami S, et al. Discovery of phenylpropanoic acid derivatives containing polar functionalities as potent and orally bioavailable G protein-coupled receptor 40 agonists for the treatment of type 2 diabetes. J Med Chem. 2012 Apr 26;55(8):3756-76.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481