Cadisegliatin

Cat. No.: HY-147254

CAS No.: 859525-02-3

Molecular Formula: $C_{21}H_{33}N_3O_4S_2$

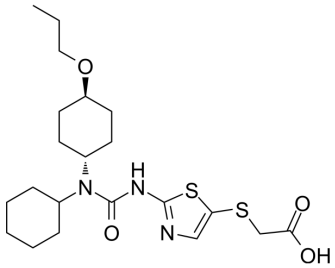
Molecular Weight: 455.63

Target: Glucokinase

Pathway: Metabolic Enzyme/Protease

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (274.35 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1948 mL	10.9738 mL	21.9476 mL
	5 mM	0.4390 mL	2.1948 mL	4.3895 mL
	10 mM	0.2195 mL	1.0974 mL	2.1948 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Cadisegliatin (TTP-399) is a potential, orally active liver-selective glucokinase (GK) activator. Cadisegliatin has antihyperglycaemic activity. Cadisegliatin can be used for the research of type 2 diabetes[1][2].

In Vitro

Cadisegliatin (TTP-399) increases glucose metabolism in rat hepatocytes, the EC_{50} values of lactate and glycogen in 15 nM glucose are 2.39 μM and 2.64 μM, respectively[2].

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

In Vivo

TTP399 (200 mg/kg, per os, p.o.) has no effect on plasma glucose and insulin in fasted rats[2].

TTP399 (75 or 150 mg/kg, per day, for 4 weeks) improves glucose homeostasis in ob/ob mouse model[2].

TTP399 (50 mg/kg, per day, for 13 weeks) is effective in reducing plasma glucose during an oral glucose tolerance test (OGTT) in minipigs model[2].

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

Animal Model:	Nondiabetic fasted rats[2]
Dosage:	200 mg/kg

Administration:	200 mg/kg, per os (p.o.)
Result:	Did not change the insulin and glucose concentrations in plasma.

Animal Model:	ob/ob mouse model[2]
Dosage:	75 or 150 mg/kg
Administration:	75 or 150 mg/kg, per day, for 4 weeks
Result:	Reduced the expression of HbA1c, blood glucose concentrations, lactate concentrations and liver glycogen depots. Improved the lipid profile, reduced plasma, liver TG concentrations and the weight gain at the highest dose.

Animal Model:	Gottingen minipigs[2]
Dosage:	50 mg/kg
Administration:	50 mg/kg, per day, for 13 weeks
Result:	Eliminated the blood glucose excursion in Minipigs.

REFERENCES

[1]. International Nonproprietary Names for Pharmaceutical Substances (INN)

[2]. Adrian Vella, et al. Targeting hepatic glucokinase to treat diabetes with TTP399, a hepatoselective glucokinase activator. Sci Transl Med. 2019 Jan 16;11(475):eaau3441.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA