

Product Data Sheet

Product Name: Cadisegliatin

Cat. No.: GC68003

Chemical Properties

Cas. No. 859525-02-3

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

M.Wt 455.63

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

Storage 4°C, protect from light

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

Background

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]}.

Cadisegliatin (TTP-399) IC_{50} 15 nM EC_{50} 2.39 μ M IC_{50} 2.64 μ M [2].

TTP399 200 mg/kg IC_{50} [2]

TTP399 75 150 mg/kg IC_{50} 4 ob/ob IC_{50} [2]

TTP399 50 mg/kg IC_{50} 13 $OGTT$ IC_{50} [2]

Animal Model: Nondiabetic fasted rats [2]

Dosage: 200 mg/kg

Administration: 200 mg/kg, per os (p.o.)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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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.

[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.

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