Loxiglumide

Cat. No.: HY-B2154

CAS No.: 107097-80-3

Molecular Formula: $C_{21}H_{30}Cl_2N_2O_5$

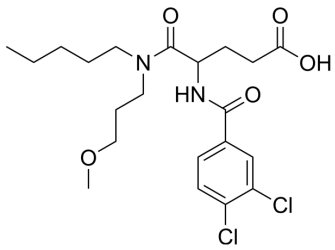
Molecular Weight: 461.38

Target: Cholecystokinin Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (216.74 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1674 mL	10.8371 mL	21.6741 mL
5 mM	0.4335 mL	2.1674 mL	4.3348 mL
10 mM	0.2167 mL	1.0837 mL	2.1674 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.42 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Loxiglumide is a cholecystokinin (CCK-1) receptor antagonist.

IC_{50} & Target

CCKAR

In Vivo

The effects of pancreatic rest by oral administration of CCK-1 receptor antagonist Loxiglumide and pancreas stimulation are investigated via endogenous CCK release induced by po protease inhibitor camostat on the recovery of pancreatic secretory function, and biochemical and histological changes of the pancreas after acute hemorrhagic pancreatitis. Oral administration of CCK-1 receptor antagonist Loxiglumide with a dose of 50 mg/kg body weight inhibits pancreatic exocrine secretion for more than 12 h. Thus, every 12-h administration of Loxiglumide might have completely blocks the effect of

endogenously released CCK on the pancreas (pancreatic rest)[1].

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

PROTOCOL

Animal Administration [1]

Rats[1]

At 24 h after induction of acute hemorrhagic pancreatitis, rats are divided into four different treatment groups: standard rat chow (AP-C); standard rat chow with pancreatic rest (AP-R); standard rat chow with pancreatic stimulation (AP-S); and standard rat chow with pancreatic rest, followed by pancreatic stimulation (AP-R/S). Rats in the AP-C group receive 2 mL/kg body weight saline orally (po) via an orogastric tube twice daily (09:00 and 21:00 h) for 10 d; the AP-R group receive 50 mg/kg body weight of CCK-1 receptor antagonist Loxiglumide dissolved in 2 mL distilled water po twice daily for 10 d; the AP-S group receive 25 mg/kg body weight protease inhibitor Camostat, which is known to stimulate endogenous CCK release, dissolved in 2 mL distilled water po twice daily for 10 d; and the AP-R/S group receive 50 mg/kg body weight Loxiglumide twice daily for the first 5 d followed by 25 mg/kg body weight camostat twice daily for the next 5 d. Rats are fed ad libitum. On day 12 at 24 h after the last treatment and overnight fasting, pancreatic exocrine function and histological examination of the pancreas are performed.

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

CUSTOMER VALIDATION

- Oxid Med Cell Longev. 2022 Jun 20;2022:5905374.

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REFERENCES

[1]. Jia D, et al. Effect of endogenous cholecystokinin on the course of acute pancreatitis in rats. World J Gastroenterol. 2015 Jul 7;21(25):7742-53.

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