Data Sheet (Cat.No.T3984)

TargetMol

GLP-1(7-36), amide

Chemical Properties

CAS No. : 107444-51-9

Formula: C149H226N40O45

Molecular Weight: 3297.63

Storage: Keep away from moisture
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	GLP-1 secretion by human enteroendocrine NCI-H716 cells is augmented in a dose-dependent manner by the addition of CPE.
Targets(IC50)	Glucagon Receptor
In vitro	**METHODS**: Human type II lung cells were incubated with GLP-1(7-36)amide (1-1000 nM). 3-isobutyl-1-methylxanthine (0.5 mM) was present during incubation to prevent cAMP hydrolysis. 24 After 1 hour, remove the culture medium and add 1 ml of cold ethanol to lyse the cells. After 1 hour of incubation at 4°C, the wells are scraped and the suspension is centrifuged at 10,000 × g for 10 minutes. The supernatant is removed and evaporated under vacuum. The residues were dissolved in assay buffer and cAMP was measured using a competition binding assay kit (Radiochemistry Center). **RESULTS** GLP-1(7-36)amide increased cAMP concentration in human type II pneumocytes in a concentration-dependent manner, both in the short and long term. [2]
In vivo	**METHODS**: Tail vein blood samples were collected from male mice each time 5 minutes before glucose infusion. After glucose infusion, GLP-1(7-36)amide [0.3-10 μ mol, intraventricular (i.c.v)] or normal saline (5 μl) was administered. , i.c.v). **RESULTS** GLP-1(7-36)amide (0.3-10 nmol, i.c.v) dose-dependently reduced the blood glucose AUC0-50 value by 32.6%. [1] **METHODS**: A 390-minute intravenous infusion of GLP-1-(7-36)amide was studied in 14 healthy volunteers. After 30 minutes, a solid test meal was provided, and gastric emptying was assessed. Blood was drawn for GLP-1 (total and intact), glucose, insulin, C-peptide, and glucagon measurements. **RESULTS** Administration of GLP-1-(7-36)amide significantly increased total GLP-1 plasma levels. During infusion of GLP-1-(7-36)amide, plasma concentrations of intact GLP-1 increased to 21 +/- 5 pmol/l. GLP-1-(7-36)amide reduced fasting and postprandial glucose concentrations ($P < 0.001$) and delayed gastric emptying ($P < 0.001$). GLP-1-(7-36)amide reduces glucagon levels. [3]

Solubility Information

Solubility	DMSO: 10 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.3032 mL	1.5162 mL	3.0325 mL
5 mM	0.0606 mL	0.3032 mL	0.6065 mL
10 mM	0.0303 mL	0.1516 mL	0.3032 mL
50 mM	0.0061 mL	0.0303 mL	0.0606 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

Lu Z, et al. GLP-1 receptors are involved in the GLP-1 (7-36) amide-induced modulation of glucose homoeostasis, emesis and feeding in Suncus murinus (house musk shrew). Eur J Pharmacol. 2020 Dec 5;888:173528.
Yan Y, Niu Z, Sun C, et al. Hepatic thyroid hormone signalling modulates glucose homeostasis through the regulation of GLP-1 production via bile acid-mediated FXR antagonism. Nature Communications. 2022, 13(1): 1-16.
Vara E,et al. Glucagon-like peptide-1(7-36) amide stimulates surfactant secretion in human type II pneumocytes. Am J Respir Crit Care Med. 2001 Mar;163(4):840-6.
Meier JJ, et al. The glucagon-like peptide-1 metabolite GLP-1-(9-36) amide reduces postprandial glycemia independently of gastric emptying and insulin secretion in humans. Am J Physiol Endocrinol Metab. 2006 Jun;290 (6):E1118-23.