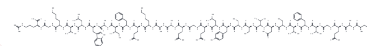


## GLP-1(7-36), amide

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 107444-51-9   |
| Formula:          | C149H226N40O45  |
| Molecular Weight: | 3297.63   |
| Appearance:       | no data available   |
| Storage:          | keep away from moisture<br>Powder: -20°C for 3 years   In solvent: -80°C for 1 year |



## 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      | <p><b>METHODS:</b> 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).</p> <p><b>RESULTS</b> 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]</p>  |
| In vivo       | <p><b>METHODS:</b> 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).</p> <p><b>RESULTS</b> 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]</p> <p><b>METHODS:</b> 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.</p> <p><b>RESULTS</b> 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 &lt; 0.001) and delayed gastric emptying (P &lt; 0.001). GLP-1-(7-36)amide reduces glucagon levels. [3]</p> |

## Solubility Information

|            |  |
|------------|--|
| Solubility | DMSO: 10 mM, Sonication is recommended.<br>(< 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.

## Reference

Lu Z, et al. GLP-1 receptors are involved in the GLP-1 (7-36) amide-induced modulation of glucose homeostasis, 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.

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