GLP-1(7-37)

Cat. No.: HY-P0055

CAS No.: 106612-94-6

Molecular Formula: $C_{151}H_{228}N_{40}O_{47}$

Molecular Weight: 3355.67

HAEGTFTSDVSSYLEGQAAKEFIAWLVKGRG

Sequence: His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-Gly

Sequence Shortening: HAEGTFTSDVSSYLEGQAAKEFIAWLVKGRG

Target: GCGR

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture and light

Powder -80°C 2 years

-20°C 1 year

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

SOLVENT & SOLUBILITY

In Vitro

0.1 M HCL : ≥ 50 mg/mL (14.90 mM)

80% Acetic acid/water : ≥ 10 mg/mL (2.98 mM)

H_2O : < 0.1 mg/mL (insoluble)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.2980 mL	1.4900 mL	2.9800 mL
5 mM	0.0596 mL	0.2980 mL	0.5960 mL
10 mM	0.0298 mL	0.1490 mL	0.2980 mL

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

BIOLOGICAL ACTIVITY

Description GLP-1(7-37) is an intestinal insulinotropic hormone that augments glucose induced insulin secretion.

In Vivo

GLP-1(7-37) (0.5, 5 or 50 pmol/min/kg) infused during the second hour of a 2-hour 11-mM hyperglycemic clamp produces a dose-related enhancement of the glucose-stimulated increase in plasma insulin concentration and an increased rate of glucose infusion in rats[2].

Infusion of GLP-1(7-37) (5 pmol/min/kg) from 1 hour through 7 hours produces a sustained increase in plasma insulin concentration relative to levels in rats infused with vehicle in rats with maintained glucose concentration at 11 mM[2].

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

Animal Model:	Male Sprague-Dawley rats weighing 300 to 350 g with maintained plasma glucose concentration at 11 mM[2].
Dosage:	0.5, 5 or 50 pmol/min/kg.
Administration:	IV during the second hour of a 2-hour 11-mmol/L hyperglycemic clamp.
Result:	Produced a dose-related enhancement of the glucose-stimulated increase in plasma insulin concentration and an increased rate of glucose infusion.

Animal Model:	Male Sprague-Dawley rats weighing 300 to 350 g with glucose IV at a variablerate for 7 hours to maintain plasma glucose concentration at 11 mM[2].
Dosage:	5 pmol/min/kg.
Administration:	IV from 1 hour through 7 hours[2].
Result:	Produced a sustained increase in plasma insulin concentration relative to levels in rats infused with vehicle.

CUSTOMER VALIDATION

- Patent. US20200283424A1.
- Patent. US20200283424A1.

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REFERENCES

[1]. Sarrauste de Menthiere, C. et al. Structural requirements of the N-terminal region of GLP-1-[7-37]-NH2 for receptor interaction and cAMP production. European journal of medicinal chemistry 39, 473-480, doi:10.1016/j.ejmech.2004.02.002 (2004).

[2]. Hargrove DM, et al. Glucose-dependent action of glucagon-like peptide-1 (7-37) in vivo during short- or long-term administration. Metabolism. 1995 Sep;44(9):1231-7.

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