GLP-1(7-37) acetate

Cat. No.: HY-P0055A

CAS No.: 1450806-98-0

Molecular Formula: $C_{153}H_{232}N_{40}O_{49}$

Molecular Weight: 3415.72

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

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

H_2O : 50 mg/mL (14.64 mM; ultrasonic and adjust pH to 1 with HCl)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.2928 mL	1.4638 mL	2.9276 mL
	5 mM	0.0586 mL	0.2928 mL	0.5855 mL
	10 mM	0.0293 mL	0.1464 mL	0.2928 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 12.5 mg/mL (3.66 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

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

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 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.

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.

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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