GLP-1(32-36)amide

Cat. No.: HY-P3102

CAS No.: 1417302-71-6

Molecular Formula: $C_{25}H_{50}N_{10}O_5$

Molecular Weight: 570.73

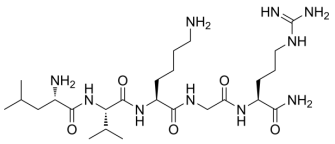
Sequence: Leu-Val-Lys-Gly-Arg-NH2

Sequence Shortening: LVKGR-NH2

Target: GCGR

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture
Powder -80°C 2 years
-20°C 1 year
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 250 mg/mL (438.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.7521 mL	8.7607 mL	17.5214 mL
	5 mM	0.3504 mL	1.7521 mL	3.5043 mL
	10 mM	0.1752 mL	0.8761 mL	1.7521 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: ≥ 2.08 mg/mL (3.64 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.64 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.64 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GLP-1(32-36)amide, a pentapeptide, derived from the C terminus of the glucoregulatory hormone GLP-1. GLP-1(32-36)amide could inhibit weight gain and modulate whole body glucose metabolism in diabetic mice[1][2].

In Vitro

GLP-1(32-36)amide (0.1-10 μM; 24 h) retains cell viability and decreases apoptosis against Streptozotocin (STZ; 1 μM) in INS-1 cells[2].

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

Cell Viability Assay[2]

Cell Line:	INS-1 cells
Concentration:	0.1, 1, 10 μM
Incubation Time:	24 hours
Result:	Decreased cell viability only approximately 30% in 0.1 μM and approximately 20% in ≥1 μM while approximately 45% in saline-treated controls.

In Vivo

GLP-1(32-36)amide (1 μmol/kg; i.p. once daily for 21 d) protects islet from damage, inhibits weight gain, and relieves symptoms of polydipsia in diabetic mice[2].

GLP-1(32-36)amide (1 μmol/kg; a single i.p.) slightly reduces the mean glucose lever at 30 min after the challenge of glucose in normal mice[2].

GLP-1(32-36)amide (50-70 nmol/kg/d; infusion for 12-16 weeks) prevents the development of diet-induced obesity and hepatic steatosis in high fat-fed mice[3].

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

Animal Model:	Male KM mice (6-8 weeks; 18-22 g) injected with STZ[2]
Dosage:	1 μmol/kg
Administration:	I.p. once daily for 21 days
Result:	Significantly lowered the cumulative values of food and water intake. Lowered fasting glucose. Reduced the level of Hemoglobin A1c (HbA1c). Improved glucose tolerance. Suppressed body weight gain.

REFERENCES

[1]. Elahi D, et, al. GLP-1(32-36)amide, a novel pentapeptide cleavage product of GLP-1, modulates whole body glucose metabolism in dogs. Peptides. 2014 Sep;59:20-4.

[2]. Sun L, et, al. Novel Pentapeptide GLP-1 (32-36) Amide Inhibits β-Cell Apoptosis In Vitro and Improves Glucose Disposal in Streptozotocin-Induced Diabetic Mice. Chem Biol Drug Des. 2015 Dec;86(6):1482-90.

[3]. Tomas E, et, al. GLP-1(32-36)amide Pentapeptide Increases Basal Energy Expenditure and Inhibits Weight Gain in Obese Mice. Diabetes. 2015 Jul;64(7):2409-19.

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