Cagrilintide

Cat. No.: HY-P3462

CAS No.: 1415456-99-3

Molecular Formula: $C_{194}H_{312}N_{54}O_{59}S_2$

Molecular Weight: 4409.01

Sequence: {Eicosanedioic acid-γ-Glu}-Lys-Cys-Asn-Thr-Ala-Thr-Cys-Ala-Thr-Gln-Arg-Leu-Ala-Glu-Phe-Leu-Arg-His-Ser-Ser-Asn-Asn-Phe-Gly-Pro-Ile-Leu-Pro-Pro-Thr-Asn-Val-Gly-Ser-Asn-Thr-Pro-NH2 (Disulfide bridge:Cys3-Cys8)

Sequence Shortening: {Eicosanedioic acid-γ-Glu}-KCNTATCATQRLAEFLRHSSNNFGPILPPTNVGSNTP-NH2 (Disulfide bridge:Cys3-Cys8)

Target: CGRP Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Sealed storage, away from moisture and light, under nitrogen
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, under nitrogen)

{Eicosanedioic acid-γ-Glu}-Lys-Cys-Asn-Thr-Ala-Thr-Cys-Ala-Thr-Gln-Arg-Leu-Ala-Glu-Phe-Leu-Arg-His-Ser-Ser-Asn-Asn-Phe-Gly-Pro-Ile-Leu-Pro-Pro-Thr-Asn-Val-Gly-Ser-Asn-Thr-Pro-NH2

SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (22.68 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.2268 mL	1.1340 mL	2.2681 mL
5 mM	0.0454 mL	0.2268 mL	0.4536 mL
10 mM	0.0227 mL	0.1134 mL	0.2268 mL

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

BIOLOGICAL ACTIVITY

Description

Cagrilintide is an investigational novel long-acting acylated amylin analogue, acts as nonselective amylin receptors (AMYR) and calcitonin G protein-coupled receptor (CTR) agonist. Cagrilintide induces significant weight loss and reduces food intake. Cagrilintide has the potential for the research of obesity[1][2][3].

In Vivo

Cagrilintide (compound 23) (0.1, 1, 3, 10, 30 nmol/kg; s.c.) reduces food intake in the rat[2].
Cagrilintide (10 nmol/kg; i.v. or s.c.) shows good pharmacokinetic parameters[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	12 weeks, 400 g Sprague Dawley male rats[2]
Dosage:	0.1, 1, 3, 10, 30 nmol/kg
Administration:	S.c.; once for 80 h
Result:	Reduced food intake in the rat for several days at doses in the range of 1-10 nmol/kg.

Animal Model:	12 weeks, 400 g Sprague Dawley male rats[2]
Dosage:	10 nmol/kg
Administration:	I.v.; s.c.
Result:	Showed good pharmacokinetic parameters with $T_{1/2}$ of 20±2, 27±3 h for i.v. and s.c., respectively.

CUSTOMER VALIDATION

- Patent. US12233112.
- Patent. US12233110.
- Patent. US12233111.

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REFERENCES

[1]. Fletcher MM, et al. AM833 Is a Novel Agonist of Calcitonin Family G Protein-Coupled Receptors: Pharmacological Comparison with Six Selective and Nonselective Agonists. J Pharmacol Exp Ther. 2021 Jun;377(3):417-440.

[2]. Kruse T, et al. Development of Cagrilintide, a Long-Acting Amylin Analogue. J Med Chem. 2021 Aug 12;64(15):11183-11194.

[3]. Dehestani B, et al. Amylin as a Future Obesity Treatment. J Obes Metab Syndr. 2021 Dec 30;30(4):320-325.

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