Amylin, amide, human

Cat. No.: HY-P1070

CAS No.: 122384-88-7

Molecular Formula: $C_{165}H_{261}N_{51}O_{55}S_2$

Molecular Weight: 3903.28

Sequence: Lys-Cys-Asn-Thr-Ala-Thr-Cys-Ala-Thr-Gln-Arg-Leu-Ala-Asn-Phe-Leu-Val-His-Ser-Ser-Asn-Asn-Phe-Gly-Ala-Ile-Leu-Ser-Ser-Thr-Asn-Val-Gly-Ser-Asn-Thr-Tyr-NH2 (Disulfide bridge: Cys2-Cys7)

Lys-Cys-Asn-Thr-Ala-Thr-Cys-Ala-Thr-Gln-Arg-Leu-Ala-Asn-Phe-Leu-Val-His-Ser-Ser-Asn-Asn-Phe-Gly-Ala-Ile-Leu-Ser-Ser-Thr-Asn-Val-Gly-Ser-Asn-Thr-Tyr-NH_2 (Disulfide bridge: Cys_2-Cys_7)

Sequence Shortening: KCNTATCATQRLANFLVHSSNNFGAILSSTNVGSNTY-NH2 (Disulfide bridge: Cys2-Cys7)

Target: Amylin Receptor

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

H_2O : 4.76 mg/mL (1.22 mM; ultrasonic and adjust pH to 1 with CH3COOH)
H_2O : < 0.1 mg/mL (ultrasonic) (insoluble)

Preparing Stock Solutions

Mass / Solvent / Concentration	1 mg	5 mg	10 mg
1 mM	0.2562 mL	1.2810 mL	2.5619 mL
5 mM	---	---	---
10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

Amylin, amide, human, a 37-amino acid polypeptide, is a pancreatic hormone cosecreted with insulin that exerts unique roles in metabolism and glucose homeostasis. Amylin, amide, human inhibits glucagon secretion, delays gastric emptying, and acts as a satiety agent[1].

In Vitro

MCF-7 cells endogenously express human amylin receptor CTR1 and CTR2. Stimulation of the receptor with Amylin, amide, human results in the production of cAMP. Amylin, amide, human (0.001 nM-1000 μM) results in an EC_{50} of 35.2±7.5 nM[1].

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

Cell Viability Assay[1]

Cell Line:	MCF-7 cells
Concentration:	0.001 nM, 0.01 nM, 0.1 nM, 1 nM, 10 nM, 100 nM, 1 μM, 10μM, 100 μM, 1000 μM
Incubation Time:	
Result:	Resulted in the production of cAMP with an EC_{50} of 35.2±7.5 nM.

In Vivo

Amylin, amide, human (400 μg peptide /kg body weight) is injected by subcutaneous route in separated groups of swiss male mice. A typical PK curve for the free amylin is observed, with a half-time of 23 min[1].

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

Animal Model:	Swiss male mice (8 weeks old)[1]
Dosage:	400 μg peptide /kg body weight (Pharmacokinetic Analysis)
Administration:	Subcutaneous route; 24 hours
Result:	Half-time of 23 min.

REFERENCES

[1]. Sisnande T, et al. Monoconjugation of Human Amylin with Methylpolyethyleneglycol. PLoS One. 2015 Oct 8;10(10):e0138803.

Caution: Product has not been fully validated for medical applications. For research use only.

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