

# PRODUCT INFORMATION



## Amylin (human) (amidated) (trifluoroacetate salt)

Item No. 24895

**Formal Name:** cyclic (2→7)-disulfide, L-lysyl-L-cysteinyl-L-asparaginyl-L-threonyl-L-alanyl-L-threonyl-L-cysteinyl-L-alanyl-L-threonyl-L-glutamyl-L-arginyl-L-leucyl-L-alanyl-L-asparaginyl-L-phenylalanyl-L-leucyl-L-valyl-L-histidyl-L-seryl-L-seryl-L-asparaginyl-L-asparaginyl-L-phenylalanylglycyl-L-alanyl-L-isoleucyl-L-leucyl-L-seryl-L-seryl-L-threonyl-L-asparaginyl-L-valylglycyl-L-seryl-L-asparaginyl-L-threonyl-L-tyrosinamide, trifluoroacetate salt

**Synonyms:** IAPP (human) (amidated), Islet Amyloid Polypeptide (human) (amidated)

**MF:** C<sub>165</sub>H<sub>261</sub>N<sub>51</sub>O<sub>55</sub>S<sub>2</sub> • XCF<sub>3</sub>COOH

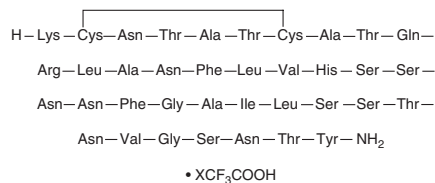
**FW:** 3,903.3

**Purity:** ≥95%

**Supplied as:** A lyophilized powder

**Storage:** -20°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Amylin (human) (amidated) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the amylin (human) (amidated) (trifluoroacetate salt) in water. The solubility of amylin (human) (amidated) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Amylin is a peptide hormone secreted from pancreatic β-cells that reduces food intake, decreases glucagon secretion, slows gastric emptying, and increases satiety.<sup>1</sup> Native amylin is a cleavage product of proamylin that is processed and amidated at the C-terminus, a modification that is required for its biological activities.<sup>2</sup> Amidated amylin increases the rate of glycogen synthesis induced by insulin in isolated rat soleus muscle when used at a concentration of 1 nM, while linear non-amidated amylin has no effect. Amylin is present in amyloid aggregates derived from the pancreatic islets of humans with type 2 diabetes and, *in vitro*, amidated amylin is more amyloidogenic than the free acid form.<sup>3,4</sup> Amylin (human) (amidated) is a 37-residue amidated form of amylin that contains a disulfide bridge between cysteines two and seven.

### References

1. Lutz, T.A. Control of food intake and energy expenditure by amylin - therapeutic implications. *Int. J. Obes.* **33(Suppl. 1)**, S24-S27 (2009).
2. Roberts, A.N., Leighton, B., Todd, J.A., *et al.* Molecular and functional characterization of amylin, a peptide associated with type 2 diabetes mellitus. *Proc. Natl. Acad. Sci. U.S.A.* **86(24)**, 9662-9666 (1989).
3. Cooper, G.J.S., Willis, A.C., Clark, A., *et al.* Purification and characterization of a peptide from amyloid-rich pancreases of type 2 diabetic patients. *Proc. Nat. Acad. Sci. USA* **84(23)**, 8628-8632 (1987).
4. Yonemoto, I.T., Kroon, G.J.A., Dyson, H.J., *et al.* Amylin proprotein processing generates progressively more amyloidogenic peptides that initially sample the helical state. *Biochemistry* **47(37)**, 9900-9910 (2008).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM