

PRODUCT INFORMATION



Amylin (rat, mouse) (trifluoroacetate salt)

Item No. 24275

Formal Name: 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-arginyl-L-seryl-L-seryl-L-asparaginyl-L-asparaginyl-L-leucylglycyl-L-prolyl-L-valyl-L-leucyl-L-prolyl-L-prolyl-L-threonyl-L-asparaginyl-L-valylglycyl-L-seryl-L-asparaginyl-L-threonyl-L-tyrosinamide, cyclic (2→7)-disulfide, trifluoroacetate salt

Synonyms: IAPP (rat, mouse), Islet Amyloid Polypeptide (rat, mouse)

MF: $C_{167}H_{272}N_{52}O_{53}S_2 \cdot XCF_3COOH$

FW: 3,920.4

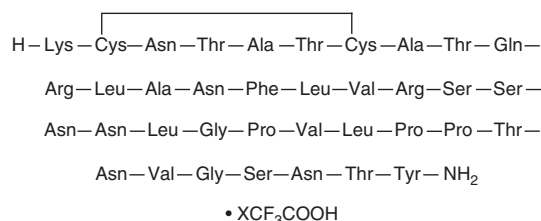
Purity: ≥95%

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 (rat, mouse) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the amylin (rat, mouse) (trifluoroacetate salt) in water. The solubility of amylin (rat, mouse) (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 37-residue peptide hormone secreted by pancreatic β -cells that reduces food intake, modifies glycogen synthesis, slows gastric emptying, and increases satiety.¹⁻⁴ It binds to heteromeric complexes of human calcitonin receptor 2 (CTR2) with receptor activity-modifying protein (RAMP) 1 or 3 (IC_{50} s = 7.86 and 6.35 nM, respectively).⁵ It also binds to mouse α -thyroid-stimulating hormone thyrotroph (α -TSH) cells (IC_{50} = 10.5 nM) and rat nucleus accumbens membrane preparations (K_i = 0.024 nM).^{4,5} *In vitro*, amylin (100 nM) inhibits insulin-induced, but not basal, glycogen synthesis in hepatocytes isolated from fasted rats.³ It also inhibits insulin-induced glycogen synthesis *ex vivo* in isolated soleus muscle from fasted rats.⁴ *In vivo*, amylin delays gastric emptying in rats (ED_{50} = 69 pmol) and decreases food intake in fasted mice (ED_{50} = 110 μ g/kg).^{2,4} Unlike human amylin (Item No. 24274), rat amylin does not form fibrils and is not cytotoxic.⁶

References

1. Lutz, T.A. *Int. J. Obes.* **33**(Suppl. 1), S24-S27 (2009).
2. Mack, C.M., Soares, C.J., Wilson, J.K., et al. *Int. J. Obes. (Lond)* **34**(2), 385-395 (2010).
3. Gómez-Foix, A.M., Rodríguez-Gil, J.E., and Guinovart, J.J. *Biochem. J.* **276**(Pt 3), 607-610 (1991).
4. Vine, W., Beaumont, K., Gedulin, B., et al. *Eur. J. Pharmacol.* **314**(1-2), 115-121 (1996).
5. Christopoulos, G., Perry, K.J., Morfis, M., et al. *Mol. Pharmacol.* **56**(1), 235-242 (1999).
6. Green, J., Goldsbury, C., Mini, T., et al. *J. Mol. Biol.* **326**(4), 1147-1156 (2003).

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.

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