

Product Specification Sheet

Human Amylin

Cat. # AMYL16-P5 Human Amylin 1-37 (oxidized) **SIZE:** 500 ug
FORM: Soln Lyophilized

The calcitonin family of bioactive peptides comprises of **calcitonin**, **amylin**, two calcitonin-gene related peptides (**CGRP1**, and **CGRP2**) and adrenomedullin (**ADM**). **Amylin** is a 37-aa peptide produced in the pancreatic beta-cell secretory granules and is co-released with insulin. Amylin also has CGRP-like effects on bone metabolism. Amylin has specific binding sites in the CNS and it may regulate gastric emptying and influence carbohydrate metabolism. The calcitonin family peptides probably act through G-protein coupled membrane receptors. Recently, a homolog of calcitonin receptor, **CRLR** (calcitonin-receptor-like receptor human 461 aa; rat/mouse 463 aa) was identified. It is now shown that CRLR can function as either a CGRP receptor or an ADM receptor, depending upon which members of a new family of proteins called receptor activity modifying proteins (**RAMP1-3**) are expressed.

FUNCTION: Selectively inhibits insulin-stimulated glucose utilization and glycogen deposition in muscle, while not affecting adipocyte glucose metabolism.

SUBCELLULAR LOCATION: Secreted.

DISEASE: IAPP is the peptide subunit of amyloid found in pancreatic islets of type 2 diabetic patients and in insulinomas.

SIMILARITY: Belongs to the calcitonin family.

Protein name Islet amyloid polypeptide [Precursor];
Synonyms Amylin; Diabetes-associated peptide DAP;
Insulinoma amyloid peptide ; Gene name Name: IAPP

Source of Antigen and Antibodies

Full length human amylin 1-37 aa

KCN TAT CAT QRL ANF LVH SSN NFG AIL SST NVG
SNT Y-amide;

Disulfide Cys2-Cys7

Mol wt : 3904.4

Purity : >97%

Form & Storage

Human amylin is supplied in 500 ug/vial in lyophilized form. Powder can be dissolved in water to prepare at stock of 1mg/ml. Working dilutions can be prepared in the required buffer.

Store at -20oC (liquid or powder). Do not store working dilutions of the peptide.

Powder is stable for up to 6 months at -20oC. Liquid can be stored for ~3-6 months when kept at -20oC.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: up to 6months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

General References:

(1). Mosselman S et al (1989) FEBS lett. 247, 154; Nishi M et al (1989) Mol. Endocrinol. 3, 177; Sanke T et al (1988) JBC 263, 17243; Christmanson L et al (1990) FEBS lett. 267, 160; westmark P et al (1987) ONAS 86, 9662; McLatchie LM et al (1998) Nature 393, 333-339; Nagae T et al (2000) BBRC 270, 89-93; Husmann, K et al (2000); Mol Cell Endocrinol (2000) 162, 35-43

Citations of ADI's antibodies for CRLR and RAMP (see updated list at: www.4adi.com/flr/rampflr.html)

*This product is for In vitro research use only.

Related material available from ADI

Antibodies RAMP1-3, Amylin, calcitonin, CGRP, Adrenomedullin, CRLR

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