

Product Specification Sheet

Pancreatic Polypeptide Y (PPY) Antibodies

Cat. # PPY11-P	Mouse PPY1 control/blocking peptide # 1	SIZE: 100 ug
Cat. # PPY11-A	Rabbit Anti-Mouse PPY1 IgG # 1 (aff pure)	SIZE: 100 ug

Neuropeptide Y (**NPY**), a neuropeptide colocalized and abundantly released with the neurotransmitter norepinephrine in nervous system, synthesized by postnatal olfactory epithelium of sustentacular cells. It promotes the proliferation of postnatal neuronal precursor cells and exhibits a diverse range of important physiologic activities, including effects on psychomotor activity, food intake, regulation of central endocrine secretion, and potent vasoactive effects on the cardiovascular system.

NPY a 97aa peptide in mouse, human (chr 7p15.1) and 98aa in rat has a mol. wt of 11kD. NPY shows sequence homology to Peptide YY (PYY) and over 50% homology in amino acid and nucleotide sequence to Pancreatic Polypeptide (PNP or PPY), all of these homologous peptides has a 36aa mature peptide characterized by a hairpin loop.

PPY: It was the first identified product (95aa in full) of the dominating endocrine cell type of the duodenal pancreas, this hormone of 36aa mature peptide (human, chr 17q12-q21) seems to be involved in the regulation of exocrine pancreatic secretion and biliary tract motility. Inhibits the secretion of enzymes and bicarbonates from exocrine pancreas.

FUNCTION: Pancreatic hormone is synthesized in pancreatic islets of Langerhans and acts as a regulator of pancreatic and gastrointestinal functions.

SUBCELLULAR LOCATION: Secreted.

SIMILARITY: Belongs to the NPY family.

Protein name Pancreatic prohormone [Precursor]

Synonyms Pancreatic polypeptide, PP

Gene name Name: Ppy

Source of Antigen and Antibodies

Antigen	14-aa peptide from Mouse PPY1 (1) ; (protein accession #P10601, refs 1) Designation (PPY11-P, control peptide) conjugated to KLH; Epitope location Mature Peptide region
Ab Host/type	Rabbit, Polyclonal Aff pure IgG (cat # PPY11-A) purified over the antigen column
Ab Format	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in **Buffer:** PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20°C and powder at 4°C or -20°C..

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

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting (1-10 ug/ml for affinity pure antibody using ECL technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of aff pure IgG at 2-20 ug/ml.

Specificity & Cross-reactivity

The mPPY11-P control peptide shows just 78% identity with bovine PPY1. Antibody cross-reactivity in various species has not been studied. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity

General References: Hort Y et al (1995) Genomics 26: 77-83; Hansel D. E et al (2001) Nature 410: 940-943; Thiele, T. E et al (1998) Nature 396: 366-369; Maccarrone C. D et al (1986) Neurochem. Int 8: 13-22; Jonathan A Bard (1995) JBC 270: 26762 – 26765.

*This product is for In vitro research use only.

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