ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Neuropeptide Y (NPY) Antibodies

Cat. # NPY11-P	Mouse NPY1 control/blocking peptide # 1 .	**SIZE**: 100 ug
Cat. # NPY11-A	**Rabbit** Anti-Mouse NPY1 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 precursor is a 97-aa peptide in mouse, human (chr 7p15.1) and 98-aa in rat has a mol. wt of 11kD. The precursor contains a 28-aa signal peptide, 29-64 (active processed NPY peptide) followed by the C-flanking peptide of NPY. 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 36-aa mature peptide characterized by a hairpin loop.

FUNCTION: NPY is implicated in the control of feeding and in secretion of gonadotrophin-release hormone (By similarity).
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the NPY family.
Protein name Neuropeptide Y
Synonym NPY
Gene name Name: NPY

Source of Antigen and Antibodies

Antigen	9-aa peptide from **Mouse NPY1** (1); (protein accession #P68006 , refs 1) **Designation (NPY11-P, control peptide or blocking peptide**) conjugated to KLH; ~N-terminus of mature NPY
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (**#NPY11-S**) and IgG, purified over antigen-agarose (Cat # **NPY11-A**)
2-Ab	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^{O}C and powder at 4^{o}C or -20^{o}C..

Long-term: at –20^{0}C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20^{o}C or below.
Shipping: 4^{o}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 Mouse NPY11-P control peptide is 100% conserved in rat, human and chicken NPY1. 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: 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; Gerald FDiBona (2002) Am J. Physiol Regulatory Integrative Comp Physiol 282: 635-36 (review).

*This product is for In vitro research use only.

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NPY11-A-P 70907J

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