ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Neuropeptide Y 2 Receptor (NPY2R) Antibodies

Cat. # NPY2R12-P	Human NPY2R control peptide # 2	**SIZE**: 100 ug
Cat. # NPY2R12-A	**Rabbit** Anti-Human NPY2R IgG # 2 (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. **NPY2R**, an integral membrane protein with 385aa in mouse, 417 in rat and 381aa in human (chr 4q31). This receptor mediates its action by association with G proteins that activate a phospatidylinositol-calcium second messenger system.

Source of Antigen and Antibodies

Antigen	14-aa peptide from human **NPY2R** (1); **Designation (NPY2R12-P, control peptide**) conjugated to KLH; **Epitope location**~ C-terminal, Cytoplasmic domain
Ab Host/type	Rabbit, Polyclonal Aff pure IgG (**cat # NPY2R12-A**) purified over peptide antigen-agarose column
2-ab	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 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 -20OC and powder at 4oC or -20oC..

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

Stability: 6-12 months at –20oC or below.
Shipping: 4oC 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 human NPY2R12-P control peptide is 85% conserved in mouse, rat, and monkey NPY2R. 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 (see detailed protocol see detailed protocol at the web site).

General References: Ammar D.A et al (1996) Genomics 38 (3), 392-398; Yan H et al (1996) PNAS 93 (10) 4661-4665; Rose P. M (1995) JBC 270 (39), 22661-22664. Gehlert, D. R et al (1996) Mol. Pharmacol. 49 (2), 224-228.

(2) Citations of ADI's NPY2R Antibodies (Updates at web site)

Jackson DN 2005 J. Physiol. 568, 573-581

*This product is for In vitro research use only.

Related material available from ADI

Antibodies for PPY, PYY, and NPY receptors Y1-Y6.

Melanocortin, NMU, Neurotensin, Leptin, MCHR receptors

NPY2R12-A-P 71211A

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