

Product datasheet for **TA328897**

Npy2r Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CEQRDAIHCSEVSMTFKAK, corresponding to amino acid residues 346-364 of mouse NPY2R. Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	neuropeptide Y receptor Y2
Database Link:	NP_032757 Entrez Gene 66024 Rat Entrez Gene 18167 Mouse P97295



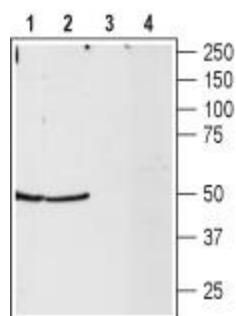
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Background:

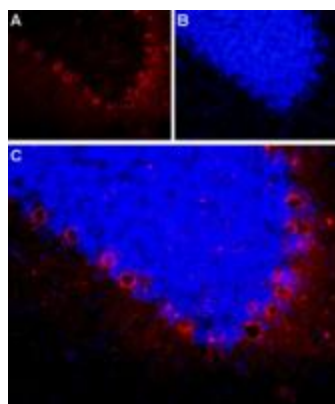
Neuropeptide Y (NPY) is a 36-amino acid peptide neurotransmitter in the central (CNS) and peripheral nervous systems. It belongs to the NPY family, together with peptide YY (PYY) and pancreatic polypeptide (PP). NPY is involved in regulation of a broad range of homeostatic functions such as eating behavior, hypertension, and reproduction. NPY exerts its effects via five receptor subtypes known as the neuropeptide Y receptors (NPYR): Y1 (NPY1R), Y2 (NPY2R), Y4 (NPY4R), Y5 (NPY5R), and Y6 (NPY6R). Four of these, Y1, Y2, Y4, and Y5, are expressed in humans. The NPY receptors belong to the G protein-coupled receptor superfamily whose members share a common structure of seven putative transmembrane domains, an extracellular amino terminus, and a cytoplasmic carboxyl terminus. Activation of these receptors by NPY produces effects on $[Ca^{2+}]_i$, adenylate cyclase, and a number of ion channels.³ Based on the high frequency and density of NPY receptors in steroid hormone-producing tumors, the NPY receptors might be of potential use in tumor management. NPY2R is primarily expressed in neurons as a presynaptic receptor. It is also strongly expressed in epithelia of the visceral tissues, including colon and kidney. NPY2R is involved in inhibition of neurotransmitter release mediated by NPY.⁵ Release of glutamate, the principal neuroexcitatory transmitter, is inhibited via the NPY2R receptor. Involvement of NPY2R in feeding behavior was also reported. PYY(3–36), an NPY2R agonist, acts to inhibit feeding via NPY2R.

Synonyms:

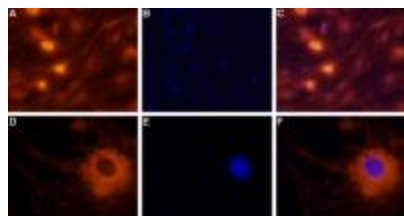
NPY2-R

Product images:


Western blot analysis of rat hippocampus and rat whole brain lysates: 1, 2. Anti-Neuropeptide Y2 Receptor antibody, (1:200). 3, 4. Anti-Neuropeptide Y2 Receptor antibody, preincubated with the control peptide antigen.



Expression of Neuropeptide Y2 Receptor in rat cerebellum. Immunohistochemical staining of frozen section of rat cerebellum using Anti-Neuropeptide Y2 Receptor antibody, (1:100). Neuropeptide Y2 Receptor (red) is detected in Purkinje cells. B. Nuclei were stained using DAPI as the counterstain. C. Merged image of A. and B.



Immunocytochemical staining of rat dorsal root ganglion (DRG) neurons. A, D. A paraformaldehyde-fixed and permeabilized DRG primary culture was stained with Anti-Neuropeptide Y2 Receptor antibody, (1:100) followed by Alexa-555-conjugated goat anti-rabbit secondary antibody. B, E. Nuclear fluorescence staining of cells using the membrane-permeable DNA dye Hoechst 33342. C. Merged images of panels A and B. F. Merged images of panels D and E. Magnification: A-C: x20 E-F: x100