

## Product datasheet for **TA328899**

### **Npy5r Rabbit Polyclonal Antibody**

#### **Product data:**

<b>Product Type:</b>	Primary Antibodies
<b>Applications:</b>	IF, IHC, WB
<b>Recommended Dilution:</b>	WB: 1:200-1:2000; IHC: 1:100-1:3000
<b>Reactivity:</b>	Rat
<b>Host:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Immunogen:</b>	Peptide SFIRKHHRRYSKKTAC corresponding to amino acid residues 291-306 of rat NPY5R. 3rd <sup>rd</sup> intracellular loop.
<b>Formulation:</b>	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 <sub>3</sub> .
<b>Reconstitution Method:</b>	Add 50 ul double distilled water (DDW) to the lyophilized powder.
<b>Purification:</b>	Affinity purified on immobilized antigen.
<b>Conjugation:</b>	Unconjugated
<b>Storage:</b>	Store at -20°C as received.
<b>Stability:</b>	Stable for 12 months from date of receipt.
<b>Gene Name:</b>	neuropeptide Y receptor Y5
<b>Database Link:</b>	<a href="#">NP_037001</a> <a href="#">Entrez Gene 25340 Rat</a> <a href="#">Q63634</a>



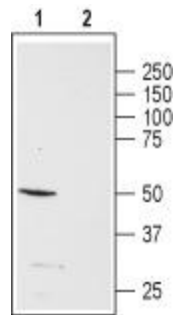
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**Background:**

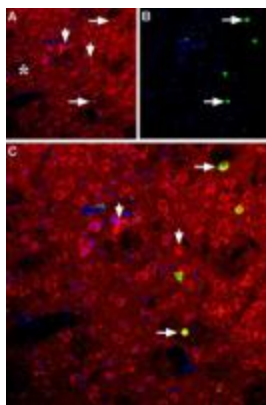
Neuropeptide Y (NPY) is a 36 amino acid peptide neurotransmitter present in the central and peripheral nervous systems. NPY is involved in the regulation of a broad range of functions such as eating behavior, hypertension, and reproduction. NPY exerts its effects via five receptor subtypes known as the 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.<sup>2</sup> 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 affects  $[Ca^{2+}]_i$ , adenylate cyclase signalling, and a number of ion channel functions. Based on their high frequency and density in steroid hormone-producing tumors, the NPYRs might be of potential use in tumor management. NPY5R as well as NPY1R and NPY2R are expressed in the hypothalamus, in the brain stem, and in peripheral tissues, such as blood vessels, lung, kidney, adrenal glands, stomach, colon, heart, pancreas, and intestine. NPY5R has been postulated as the mediator of the feeding response to NPY and related peptides (125 in Kamiji, M. M). Its localization in the brain is consistent with this hypothesis.

**Synonyms:**

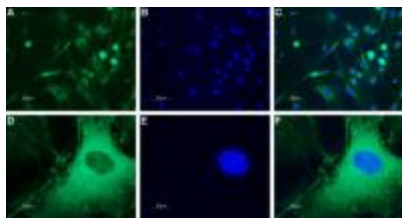
NPY5-R; NPYR5; NPY5

**Product images:**


Western blot analysis of rat brain membrane: 1. Anti-Neuropeptide Y5 Receptor antibody, (1:200). 2. Anti-Neuropeptide Y5 Receptor antibody, preincubated with the control peptide antigen.



Expression of Neuropeptide Y5 Receptor in rat striatum. Immunohistochemical staining of rat striatum using Anti-Neuropeptide Y5 Receptor antibody. A. NPY5R (red) appears in the striatal matrix (asterisk) and in nerve cells in the matrix (vertical arrows). B. Parvalbumin (green) appears in the striatal matrix. C. Merge of NPY5R and parvalbumin demonstrates co-localization in a sub-set of cells (horizontal arrows). DAPI is used as the counterstain (blue).



Immunocytochemical staining of a primary culture of rat dorsal root ganglion (DRG) neurons. A, D. A paraformaldehyde-fixed and permeabilized DRG primary culture was stained with Anti-Neuropeptide Y5 Receptor antibody, (1:100) followed by goat-anti-rabbit-AlexaFluor-488 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