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NPY2R Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21198a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P49146
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Rabbit
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB52203
Calculated MW	42731

Additional Information

Gene ID	4887
Other Names	Neuropeptide Y receptor type 2, NPY2-R, NPY-Y2 receptor, Y2 receptor, NPY2R
Target/Specificity	This NPY2R antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 29-65 amino acids from the N-terminal region of human NPY2R.
Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NPY2R Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NPY2R {ECO:0000303|PubMed:8975716}
Function	Receptor for neuropeptide Y (NPY) and peptide YY (PYY) (PubMed: 7592910, PubMed:7559383, PubMed:35507650, PubMed:36525977, PubMed:38882210). Can also bind with lower affinity pancreatic polypeptide (PP/PPY) and [Leu-31, Pro-34]NPY, an analog of NPY modified at residues 31

	and 34 of the mature form. NPY or PYY binding induces adenylate cyclase-inhibiting G protein-coupled receptor signaling, resulting in inhibition of cAMP production (PubMed:7592910, PubMed:7559383, PubMed:35507650, PubMed:38882210). Receptor activation by ligands also leads to an increase of intracellular Ca(2+) levels (PubMed:7559383, PubMed:7592910). Involved in the regulation of colonic antisecretory tone, and colonic contractility (By similarity). As receptor for peptide PYY(3-36) in the arcuate nucleus of the hypothalamus, it is involved in the down-regulation of appetite and food intake (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	High levels in amygdala, corpus callosum, hippocampus and subthalamic nucleus. Also detectable in caudate nucleus, hypothalamus and substantia nigra

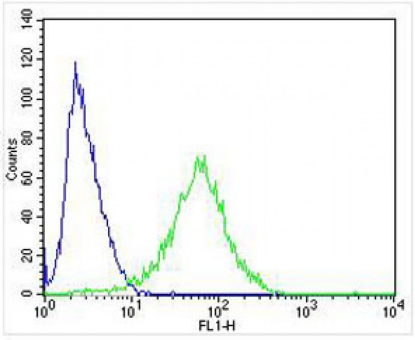
Background

Receptor for neuropeptide Y and peptide YY. The rank order of affinity of this receptor for pancreatic polypeptides is PYY > NPY > PYY (3-36) > NPY (2-36) > [Ile-31, Gln-34] PP > [Leu- 31, Pro-34] NPY > PP, [Pro-34] PYY and NPY free acid.

References

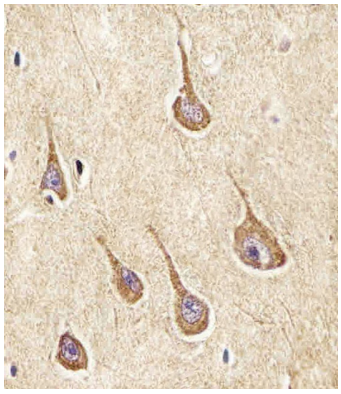
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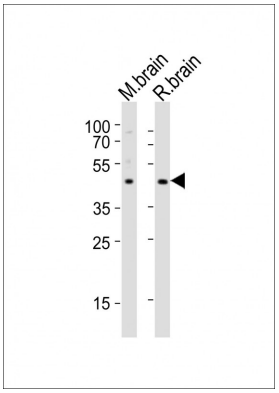
Images



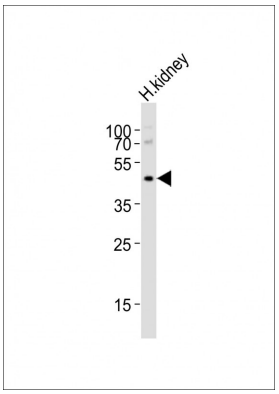
Overlay histogram showing SH-SY5Y cells stained with AP21198a (green line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit lgG (H+L) (1583138) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

AP21198a staining NPY2R in Human brain tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.





All lanes : Anti-NPY2R Antibody (N-term) at 1:2000 dilution Lane 1: mouse brain lysates Lane 2: rat brain lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-NPY2R Antibody (N-term) at 1:1000 dilution + human kidney lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 43 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.