

NPY6-R (T-20): sc-31588

BACKGROUND

Pancreatic polypeptide (PP), neuropeptide Y (NPY) and peptide YY (PYY) are related 36 amino acid hormones. A number of structurally related receptors for these peptides have been isolated: NPY1-R, NPY2-R, NPY3-R, NPY4-R, NPY5-R, and NPY6-R. NPY4-R is expressed in several human tissues, including brain, coronary artery and ileum. NPY4-R maps to human chromosome 10q11.2. NPY-5R, isolated from rat hypothalamus, encodes a 456 amino acid protein with less than 35% overall identity to known Y-type receptors. The human NPY-5R sequence is nearly identical to, but in the opposite orientation from, that of the human NPY-1R sequence. NPY5-R localizes to the paraventricular hypothalamic nucleus, the lateral hypothalamus and other locations consistent with a role in the control of feeding behavior. The gene which encodes NPY-5R maps to human chromosome 4q32.2. NPY-6R is abundantly expressed in human heart and skeletal muscle. The gene which encodes NPY-6R maps to human chromosome 5q31.2.

REFERENCES

1. Bard, J.A., et al. 1995. Cloning and functional expression of a human Y4 subtype receptor for pancreatic polypeptide, neuropeptide Y, and peptide YY. *J. Biol. Chem.* 270: 26762-26765.
2. Gerald, C., et al. 1996. A receptor subtype involved in neuropeptide Y-induced food intake. *Nature* 382: 168-171.
3. Hu, Y., et al. 1996. Identification of a novel hypothalamic neuropeptide Y receptor associated with feeding behavior. *J. Biol. Chem.* 271: 26315-26319.
4. Matsumoto, M., et al. 1996. Inactivation of a novel neuropeptide Y/peptide YY receptor gene in primate species. *J. Biol. Chem.* 271: 27217-27220.
5. Herzog, H., et al. 1997. Overlapping gene structure of the human neuropeptide Y receptor subtypes Y1 and Y5 suggests coordinate transcriptional regulation. *Genomics* 41: 315-319.

CHROMOSOMAL LOCATION

Genetic locus: NPY6R (human) mapping to 5q31.2; Npy6r (mouse) mapping to 18 B3.

SOURCE

NPY6-R (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of NPY6-R of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-31588 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NPY6-R (T-20) is recommended for detection of NPY6-R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NPY6-R (T-20) is also recommended for detection of NPY6-R in additional species, including equine.

Suitable for use as control antibody for NPY6-R siRNA (h): sc-42107, NPY6-R siRNA (m): sc-42108, NPY6-R shRNA Plasmid (h): sc-42107-SH, NPY6-R shRNA Plasmid (m): sc-42108-SH, NPY6-R shRNA (h) Lentiviral Particles: sc-42107-V and NPY6-R shRNA (m) Lentiviral Particles: sc-42108-V.

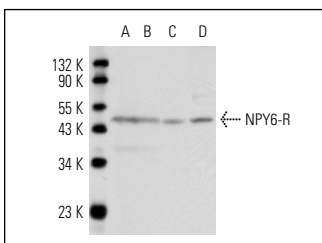
Molecular Weight of NPY6-R: 46 kDa.

Positive Controls: mouse brain extract: sc-2253, MIA PaCa-2 cell lysate: sc-2285 or SK-N-SH cell lysate: sc-2410.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NPY6-R (T-20): sc-31588. Western blot analysis of NPY6-R expression in MIA PaCa-2 (A), SK-N-SH (B) and SH-SY5Y (C) whole cell lysates and mouse brain tissue extract (D).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.