SANTA CRUZ BIOTECHNOLOGY, INC.

NPY6-R (P-20): sc-23846

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 and the gene which encodes NPY-6R maps to human chromosome 5q31.

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.
6. Lutz, C.M., et al. 1997. Neuropeptide Y receptor genes mapped in human and mouse: receptors with high affinity for pancreatic polypeptide are not clustered with receptors specific for neuropeptide Y and peptide YY. Genomics 46: 287-290.
7. Darby, K., et al. 1997. Assignment of the Y-4 receptor gene (PPYR1) to human chromosome 10q11.2 and mouse chromosome 14. Genomics 46: 513-515.

CHROMOSOMAL LOCATION

Genetic locus: Npy6r (mouse) mapping to 18 B3.

SOURCE

NPY6-R (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-23846 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NPY6-R (P-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), 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 (P-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: MIA PaCa-2 cell lysate: sc-2285, SK-N-SH cell lysate: sc-2410 or SH-SY5Y cell lysate: sc-3812.

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) 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.

STORAGE

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

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.