SANTA CRUZ BIOTECHNOLOGY, INC.

NPR (I-20): sc-12482

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Long pentraxins are a family of highly conserved proteins that are expressed in the brain and central nervous system, and form multimeric complexes. Neuronal pentraxin 1 (NP1), NP2, and neuronal pentraxin receptor (NPR) are members of the long pentraxins that represent a neuronal uptake pathway that may function during synapse formation and remodeling. The NP1 gene is located on chromosome 17q25.1-q25.2 and the protein product mediates the uptake of synaptic material, including the presynaptic snake venom toxin, taipoxin. NP2, whose function is unknown, is located on chromosome 7q21.3-122.1 and like NP1 contains several potential N-linked glycosylation sites. NPR is expressed on the cell membrane and can form heteropentamers with NP1 and NP2 that can be released from the cell membrane by proteolysis.

REFERENCES

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3. Omeis, I.A., Hsu, Y.C., Perin, M.S. 1996. Mouse and human neuronal pentraxin I (NPTX1): conservation, genomic structure, and chromosomal localization. Genomics 36: 543-545.
4. Polentarutti, N., Bottazzi, B., Di Santo, E., Blasi, E., Agnello, D., Ghezzi, P., Introna, M., Bartfai, T., Richards, G., Mantovani, A. 2000. Inducible expression of the long pentraxin PTX3 in the central nervous system. J. Neuroimmunol. 106: 87-94.
5. Kirkpatrick, L.L., Matzuk, M.M., Dodds, D.C., Perin, M.S. 2000. Biochemical interactions of the neuronal pentraxins. Neuronal pentraxin (NP) receptor binds to taipoxin and taipoxin-associated calcium-binding protein 49 via NP1 and NP2. J. Biol. Chem. 275: 17786-17792.

CHROMOSOMAL LOCATION

Genetic locus: NPTXR (human) mapping to 22q13.1; Nptxr (mouse) mapping to 15 E1.

SOURCE

NPR (I-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of NPR of human 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-12482 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

NPR (I-20) is recommended for detection of NPR 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).

NPR (I-20) is also recommended for detection of NPR in additional species, including equine and porcine.

Suitable for use as control antibody for NPR siRNA (h): sc-42097, NPR siRNA (m): sc-42098, NPR shRNA Plasmid (h): sc-42097-SH, NPR shRNA Plasmid (m): sc-42098-SH, NPR shRNA (h) Lentiviral Particles: sc-42097-V and NPR shRNA (m) Lentiviral Particles: sc-42098-V.

Molecular Weight of NPR: 55/65 kDa.

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.

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.