SANTA CRUZ BIOTECHNOLOGY, INC.

NPR (B-2): sc-390081

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

1. Hsu, Y.C., et al. 1995. Human neuronal pentraxin II (NPTX2): conservation, genomic structure, and chromosomal localization. Genomics 28: 220-227.
2. Goodman, A.R., et al. 1996. Long pentraxins: an emerging group of proteins with diverse functions. Cytokine Growth Factor Rev. 7: 191-202.
3. Omeis, I.A., et al. 1996. Mouse and human neuronal pentraxin I (NPTX1): conservation, genomic structure, and chromosomal localization. Genomics 36: 543-545.

CHROMOSOMAL LOCATION

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

SOURCE

NPR (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 459-495 near the C-terminus of NPR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NPR (B-2) is available conjugated to agarose (sc-390081 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390081 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390081 PE), fluorescein (sc-390081 FITC), Alexa Fluor® 488 (sc-390081 AF488), Alexa Fluor® 546 (sc-390081 AF546), Alexa Fluor® 594 (sc-390081 AF594) or Alexa Fluor® 647 (sc-390081 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390081 AF680) or Alexa Fluor® 790 (sc-390081 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390081 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

NPR (B-2) is recommended for detection of NPR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

NPR (B-2) is also recommended for detection of NPR in additional species, including equine and canine.

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.

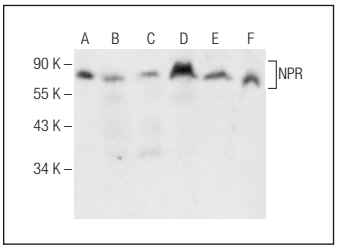
Molecular Weight of NPR: 55/65 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, IMR-32 cell lysate: sc-2409 or U-87 MG cell lysate: sc-2411.

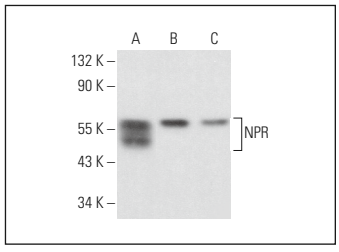
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NPR (B-2): sc-390081. Western blot analysis of NPR expression in SK-N-MC (**A**), SK-N-SH (**B**), U-251-MG (**C**), U-87 MG (**D**) and H4 (**E**) whole cell lysates and human hippocampus tissue extract (**F**).



NPR (B-2): sc-390081. Western blot analysis of NPR expression in SK-N-SH (**A**), IMR-32 (**B**) and 3T3-L1 (**C**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Bartolini, A., et al. 2015. The neuronal pentraxin-2 pathway is an unrecognized target in human neuroblastoma, which also offers prognostic value in patients. Cancer Res. 75: 4265-4271.

RESEARCH USE

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