

NP1 (A-20): sc-12122

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 17q25.3 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.

CHROMOSOMAL LOCATION

Genetic locus: NPTX1 (human) mapping to 17q25.3; Nptx1 (mouse) mapping to 11 E2.

SOURCE

NP1 (A-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NP1 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-12122 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

NP1 (A-20) is recommended for detection of NP1 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).

NP1 (A-20) is also recommended for detection of NP1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for NP1 siRNA (h): sc-42093, NP1 siRNA (m): sc-42094, NP1 shRNA Plasmid (h): sc-42093-SH, NP1 shRNA Plasmid (m): sc-42094-SH, NP1 shRNA (h) Lentiviral Particles: sc-42093-V and NP1 shRNA (m) Lentiviral Particles: sc-42094-V.

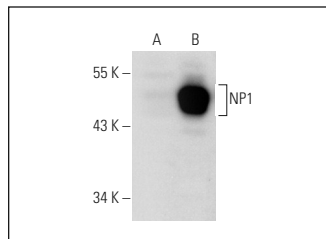
Molecular Weight of NP1: 50 kDa.

Positive Controls: rat cerebellum extract: sc-2398, mouse brain extract: sc-2253 or NP1 (h): 293T Lysate: sc-177637.

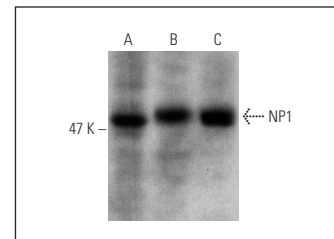
RECOMMENDED SECONDARY REAGENTS

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



NP1 (A-20): sc-12122. Western blot analysis of NP1 expression in non-transfected: sc-117752 (A) and human NP1 transfected: sc-177637 (B) 293T whole cell lysates.



NP1 (A-20): sc-12122. Western blot analysis of NP1 expression in rat cerebellum (A), mouse brain (B) and rat brain (C) tissue extracts.

SELECT PRODUCT CITATIONS

1. Abad, M.A., et al. 2006. Neuronal pentraxin 1 contributes to the neuronal damage evoked by Amyloid-β and is overexpressed in dystrophic neurites in Alzheimer's brain. *J. Neurosci.* 26: 12735-12747.

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.



Try **NP1 (B-8): sc-374199**, our highly recommended monoclonal alternative to NP1 (A-20).