

NIPA1 (S-13): sc-104459

BACKGROUND

NIPA1 (non imprinted in Prader-Willi/Angelman syndrome 1), also known as SPG6 or FSP3, is a 329 amino acid multi-pass membrane protein that exists as multiple alternatively spliced isoforms and is expressed at high levels in neuronal tissue. NIPA1 is thought to play a role in nervous system development and, when defective, is involved in the pathogenesis of spastic paraplegia autosomal dominant type 6 (SPG6), a degenerative spinal cord disease characterized by the progressive weakening of the lower limbs. The gene encoding NIPA1 maps to human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NIPA1 (human) mapping to 15q11.2; Nipa1 (mouse) mapping to 7 B5.

SOURCE

NIPA1 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of NIPA1 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-104459 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NIPA1 (S-13) is recommended for detection of NIPA1 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).

NIPA1 (S-13) is also recommended for detection of NIPA1 in additional species, including canine and bovine.

Suitable for use as control antibody for NIPA1 siRNA (h): sc-89918, NIPA1 siRNA (m): sc-106304, NIPA1 siRNA (r): sc-270012, NIPA1 shRNA Plasmid (h): sc-89918-SH, NIPA1 shRNA Plasmid (m): sc-106304-SH, NIPA1 shRNA Plasmid (r): sc-270012-SH, NIPA1 shRNA (h) Lentiviral Particles: sc-89918-V, NIPA1 shRNA (m) Lentiviral Particles: sc-106304-V and NIPA1 shRNA (r) Lentiviral Particles: sc-270012-V.

Molecular Weight (predicted) of NIPA1 isoforms: 35/27 kDa.

Molecular Weight (observed) of NIPA1: 43 kDa.

Positive Controls: mouse brain extract: sc-2253.

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.