SANTA CRUZ BIOTECHNOLOGY, INC.

β-NAP (C-15): sc-13391

BACKGROUND

A widely expressed adaptor-like complex AP-3 is involved in protein sorting in exocytic/endocytic pathways and is composed of four distinct subunits. One of these subunits, β-3A (β3A-adaptin), is closely related to the neuron-specific protein β-NAP (61% overall identity). β-NAP (also known as β-3B) is a homologue of the β/β'-adaptins. β-NAP is related to one of the adaptor subunits of clathrin-coated vesicles, and is part of an adaptor-like complex, which not associated with clathrin. Casein kinase I selectively phosphorylates the β-3A and β-NAP subunits at its hinge domain and inhibiting the kinase hinders the recruitment of AP-3 to synaptic vesicles.

REFERENCES

1. Simpson, F., et al. 1996. A novel adaptor-related protein complex. J. Cell Biol. 133: 749-760.
2. Dell'Angelica, et al. 1997. β-3A-adaptin, a subunit of the adaptor-like complex AP-3. J. Biol. Chem. 272: 15078-15084.
3. Dell'Angelica, E.C., et al. 1997. AP-3: an adaptor-like protein complex with ubiquitous expression. EMBO J. 16: 917-928.
4. Simpson, F., et al. 1997. Characterization of the adaptor-related protein complex, AP-3. J. Cell Biol. 137: 835-845.
5. Dell'Angelica, E.C., et al. 1998. Association of the AP-3 adaptor complex with clathrin. Science 280: 431-434.
6. Mullins, C., et al. 2000. Distinct requirements for the AP-3 adaptor complex in pigment granule and synaptic vesicle biogenesis in *Drosophila* melanogaster. Mol. Gen. Genet. 263: 1003-1014.
7. Faundez, V.V. and Kelly, R.B. 2000. The AP-3 complex required for endosomal synaptic vesicle biogenesis is associated with a casein kinase I α-like isoform. Mol. Biol. Cell 11: 2591-2604.

CHROMOSOMAL LOCATION

Genetic locus: AP3B2 (human) mapping to 15q25.2; Ap3b2 (mouse) mapping to 7 D3.

SOURCE

β-NAP (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of β-NAP 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-13391 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

β-NAP (C-15) is recommended for detection of β-NAP of mouse 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).

β-NAP (C-15) is also recommended for detection of β-NAP in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for β-NAP siRNA (h): sc-41163, β-NAP siRNA (m): sc-41164, β-NAP shRNA Plasmid (h): sc-41163-SH, β-NAP shRNA Plasmid (m): sc-41164-SH, β-NAP shRNA (h) Lentiviral Particles: sc-41163-V and β-NAP shRNA (m) Lentiviral Particles: sc-41164-V.

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.