

AP-3 β (D-20): sc-69447

BACKGROUND

The 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, AP-3 β , also known as β 3A-Adaptin, is closely related to the neuron-specific protein β -NAP and shares 61% overall identity. β -NAP (also known as β -3B-Adaptin) is a homolog of the β/β' -Adaptins. β -NAP is related to one of the adaptor subunits of clathrin-coated vesicles and is also part of an adaptor-like complex which is not associated with clathrin. Casein kinase I selectively phosphorylates the AP-3 β and β -NAP subunits at its hinge domain; 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, E.C., 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., et al. 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: AP3B1 (human) mapping to 5q14.1; Ap3b1 (mouse) mapping to 13 D1.

SOURCE

AP-3 β (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AP-3 β of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69447 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AP-3 β (D-20) is recommended for detection of AP-3 β 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).

AP-3 β (D-20) is also recommended for detection of AP-3 β in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AP-3 β siRNA (h): sc-41165, AP-3 β siRNA (m): sc-41166, AP-3 β shRNA Plasmid (h): sc-41165-SH, AP-3 β shRNA Plasmid (m): sc-41166-SH, AP-3 β shRNA (h) Lentiviral Particles: sc-41165-V and AP-3 β shRNA (m) Lentiviral Particles: sc-41166-V.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

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.