SANTA CRUZ BIOTECHNOLOGY, INC.

AP-3δ1 (N-15): sc-49155



BACKGROUND

Adaptins are heterotetrameric subunits of adaptors, which are complexes involved in the formation of clarithin-coated pits for vesicle-mediated endocytosis. Clathrin and its associated heterotetrameric protein complexes make up the main protein components of the coat surrounding the cytoplasmic face of coated vesicles. The adaptin family, comprising α , β , β' , and γ classes, is also responsible for the transport of ligand-receptor complexes from plasma membranes and the *trans*-Golgi network (TGN) to lysosomes. AP-3 specifically directs the transport of transmembrane cargo from the TGN to the vacuole in yeast, and to lysosomes and specialized secretory lysosome-type compartments that include melanosomes and platelets in mammals. The δ subunit of AP-3 (AP-3\delta1) binds to vesicular stomatitis virus glycoprotein (VSV-G) and delivers it from the TGN to cell surfaces to facilitate the formation of a viral coat at the cell surface.

REFERENCES

- 1. Hirst, J. and Robinson, M.S. 1998. Clathrin and adaptors. Biochim. Biophys. Acta 1404: 173-193.
- Le Borgne, R., Alconada, A., Bauer, U. and Hoflack, B. 1998. The mammalian AP-3 adaptor-like complex mediates the intracellular transport of lysosomal membrane glycoproteins. J. Biol. Chem. 273: 29451-29461.
- 3. Boehm, M. and Bonifacino, J.S. 2001. Adaptins: the final recount. Mol. Biol. Cell 12: 2907-2920.
- 4. Duden, R. 2001. AP-3: what color's your coat? Trends Cell Biol. 11: 150.
- Takatsu, H., Futatsumori, M., Yoshino, K., Yoshida, Y., Shin, H.W. and Nakayama, K. 2001. Similar subunit interactions contribute to assembly of Clathrin adaptor complexes and COPI complex: analysis using yeast three-hybrid system. Biochem. Biophys. Res. Commun. 284: 1083-1089.
- Lloyd, V.K., Sinclair, D.A., Alperyn, M. and Grigliatti, T.A. 2002. Enhancer of garnet/δAP-3 is a cryptic allele of the white gene and identifies the intracellular transport system for the white protein. Genome 45: 296-312.
- Nishimura, N., Plutner, H., Hahn, K. and Balch, W.E. 2002. The δ subunit of AP-3 is required for efficient transport of VSV-G from the *trans*-Golgi network to the cell surface. Proc. Natl. Acad. Sci. USA 99: 6755-6760.

CHROMOSOMAL LOCATION

Genetic locus: AP3D1 (human) mapping to 19p13.3; Ap3d1 (mouse) mapping to 10 C1.

SOURCE

AP-3 δ 1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of AP-3 δ 1 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49155 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AP-3&1 (N-15) is recommended for detection of AP-3&1 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&1 (N-15) is also recommended for detection of AP-3&1 in additional species, including canine, bovine and porcine.

Molecular Weight of AP-381: 130 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, Hep G2 cell lysate: sc-2227 or H4 cell lysate: sc-2408.

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) Immunofluo-rescence: 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.