

AP-3 σ (K-14): sc-46776

BACKGROUND

Clathrin-coated pits and vesicles are assembled for receptor-mediated endocytosis through interaction with Clathrin-associated protein complexes. Vesicle transport is mediated from the *trans*-Golgi network by the adapter complex AP-1 and from the plasma membrane by the AP-2 complex. AP-3 (also designated AP180 or F1-20) is a synapse-specific Clathrin assembly protein. The protein CALM (Clathrin assembly protein lymphoid myeloid leukemia) is highly homologous to AP180 and may also be involved in Clathrin assembly. AP-3 δ , AP-3 σ and AP-3 μ are important parts of the AP-3 complex.

REFERENCES

- Robinson, M.S. 1989. Cloning of cDNAs encoding two related 100 kDa coated vesicle proteins (α -adaptins). *J. Cell Biol.* 108: 833-842.
- Kirchhausen, T., et al. 1989. Structural and functional division into two domains of the large (100 to 115 kDa) chains of the Clathrin-associated protein complex AP-2. *Proc. Natl. Acad. Sci. USA* 86: 2612-2616.
- Robinson, M.S. 1990. Cloning and expression of γ -adaptin, a component of Clathrin-coated vesicles associated with the Golgi apparatus. *J. Cell Biol.* 111: 2319-2326.
- Ponnambalam, S., et al. 1990. Conservation and diversity in families of coated vesicle adaptins. *J. Biol. Chem.* 265: 4814-4820.
- Simpson, F., et al. 1997. Characterization of the adaptor-related protein complex, AP-3. *J. Cell Biol.* 137: 835-845.
- Lefrancois, S., et al. 2004. An ear-core interaction regulates the recruitment of the AP-3 complex to membranes. *Dev. Cell* 7: 619-625.
- Dong, X., et al. 2005. AP-3 directs the intracellular trafficking of HIV-1 Gag and plays a key role in particle assembly. *Cell* 120: 663-674.
- Coleman, S.H., et al. 2005. Leucine-specific, functional interactions between human immunodeficiency virus type 1 Nef and adaptor protein complexes. *J. Virol.* 79: 2066-2078.
- Lawton, A.P., et al. 2005. The mouse CD1d cytoplasmic tail mediates CD1d trafficking and antigen presentation by adaptor protein 3-dependent and independent mechanisms. *J. Immunol.* 174: 3179-3186.

CHROMOSOMAL LOCATION

Genetic locus: AP3S1 (human) mapping to 5q22.3; Ap3s1 (mouse) mapping to 18 C.

SOURCE

AP-3 σ (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AP-3 σ 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-46776 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AP-3 σ (K-14) is recommended for detection of AP-3 σ 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).

AP-3 σ (K-14) is also recommended for detection of AP-3 σ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AP-3 σ siRNA (h): sc-60180, AP-3 σ siRNA (m): sc-60181, AP-3 σ shRNA Plasmid (h): sc-60180-SH, AP-3 σ shRNA Plasmid (m): sc-60181-SH, AP-3 σ shRNA (h) Lentiviral Particles: sc-60180-V and AP-3 σ shRNA (m) Lentiviral Particles: sc-60181-V.

Molecular Weight of AP-3 σ : 22 kDa.

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.