

AP-2 μ 1 (Q-20): sc-49152

BACKGROUND

Adaptins are heterotetrameric subunits of adaptors, which are complexes involved in the formation of clathrin-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 to lysosomes. Two main types of adaptor proteins (APs), AP-1 and AP-2, are found in clathrin-coated structures located at the Golgi complex and the plasma membrane of mammalian cells, respectively. Adaptor protein complex 2 (AP-2) is composed of two large adaptins (α 1A/AP2A1 and β 1/AP2B1), a medium adaptin (μ 2/AP-2 μ 1) and a small adaptin (σ 2 long/AP2S1). AP-2 μ 1, a 435 amino acid protein, links clathrin to receptors in coated vesicles.

REFERENCES

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3. Shim, J., Sternberg, P.W. and Lee, J. 2000. Distinct and redundant functions of μ 1 medium chains of the AP-1 clathrin-associated protein complex in the nematode *Caenorhabditis elegans*. *Mol. Biol. Cell* 11: 2743-2756.
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5. 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.

CHROMOSOMAL LOCATION

Genetic locus: AP2M1 (human) mapping to 3q27.1; Ap2m1 (mouse) mapping to 16 A3.

SOURCE

AP-2 μ 1 (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of AP-2 μ 1 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-49152 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

AP-2 μ 1 (Q-20) is recommended for detection of AP-2 μ 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-2 μ 1 (Q-20) is also recommended for detection of AP-2 μ 1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AP-2 μ 1 siRNA (h): sc-60184, AP-2 μ 1 siRNA (m): sc-60185, AP-2 μ 1 shRNA Plasmid (h): sc-60184-SH, AP-2 μ 1 shRNA Plasmid (m): sc-60185-SH, AP-2 μ 1 shRNA (h) Lentiviral Particles: sc-60184-V and AP-2 μ 1 shRNA (m) Lentiviral Particles: sc-60185-V.

Molecular Weight of AP-2 μ 1: 50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.