SANTA CRUZ BIOTECHNOLOGY, INC.

AP-3µ (H-55): sc-99186



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-36 (AP-36), AP-3 σ (AP-3 σ) and AP-3 μ (AP-3 μ) are important parts of the AP-3 complex.

REFERENCES

BACKGROUND

- 1. 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.
- 3. 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.
- 4. 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.
- Singh, B., et al. 2004. Genomic organization and linkage via a bidirectional promoter of the AP-3 (adaptor protein-3) µ3A and AK (adenosine kinase) genes: deletion mutants of AK in Chinese hamster cells extend into the AP-3 µ3A gene. Biochem. J. 378: 519-528.
- Lefrancois, S., et al. 2004. An ear-core interaction regulates the recruitment of the AP-3 complex to membranes. Dev. Cell 7: 619-625.
- 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 CD18 cytoplasmic tail mediates CD18 trafficking and antigen presentation by adaptor protein 3-dependent and -independent mechanisms. J. Immunol. 174: 3179-3186.

CHROMOSOMAL LOCATION

Genetic locus: AP3M1 (human) mapping to 10q22.2; Ap3m1 (mouse) mapping to 14 A3.

SOURCE

AP-3 μ (H-55) is a rabbit polyclonal antibody raised against amino acids 280-334 mapping within an internal region of AP-3 μ 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.

APPLICATIONS

AP-3 μ (H-55) is recommended for detection of AP-3 μ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with AP-3 μ 2 subunit.

AP-3 μ (H-55) is also recommended for detection of AP-3 μ in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AP-3 μ siRNA (h): sc-60177, AP-3 μ siRNA (m): sc-60179, AP-3 μ shRNA Plasmid (h): sc-60177-SH, AP-3 μ shRNA Plasmid (m): sc-60179-SH, AP-3 μ shRNA (h) Lentiviral Particles: sc-60177-V and AP-3 μ shRNA (m) Lentiviral Particles: sc-60179-V.

Molecular Weight of AP-3µ: 47 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 4) Immuno-histochemistry: use ImmunoCruz[™]: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



AP-3µ (H-55): sc-99186. Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of alandular cells.

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.