

AP-1 μ 2 (N-19): sc-69446

BACKGROUND

AP-1 μ 2 (adaptor-related protein complex 1, μ 2 subunit), also known as μ 1B, HS μ 1B or AP1 μ 2, is a 423 amino acid protein that localizes to both the Golgi apparatus, as well as to the membrane of clathrin-coated vesicles, and contains one μ homology domain. Existing as two alternatively spliced isoforms, AP-1 μ 2 functions as a subunit of the heterotetrameric adaptor-related protein complex 1 (AP-1), which plays a role in protein sorting in endosomes and in the *trans*-Golgi network. Specifically, the AP-1 complex mediates the recruitment of clathrin to membranes and also regulates the recognition of sorting signals within transmembrane cargo molecules. The affinity of AP-1 μ 2 for sorting signals is increased upon phosphorylation. Human AP-1 μ 2 shares 97% sequence identity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

- Fölsch, H., et al. 1999. A novel clathrin adaptor complex mediates basolateral targeting in polarized epithelial cells. *Cell* 99: 189-198.
- Nakatsu, F., et al. 1999. Genomic structure and chromosome mapping of the genes encoding clathrin-associated adaptor medium chains μ 1A (AP-1 μ 1) and μ 1B (AP-1 μ 2). *Cytogenet. Cell Genet.* 87: 53-58.
- Ohno, H., et al. 1999. μ 1B, a novel adaptor medium chain expressed in polarized epithelial cells. *FEBS Lett.* 449: 215-220.
- Sugimoto, H., et al. 2002. Differential recognition of tyrosine-based basolateral signals by AP-1B subunit μ 1B in polarized epithelial cells. *Mol. Biol. Cell* 13: 2374-2382.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607309. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Roeth, J.F., et al. 2004. HIV-1 Nef disrupts MHC-I trafficking by recruiting AP-1 to the MHC-I cytoplasmic tail. *J. Cell Biol.* 167: 903-913.

CHROMOSOMAL LOCATION

Genetic locus: AP1M2 (human) mapping to 19p13.2; Ap1m2 (mouse) mapping to 9A3.

SOURCE

AP-1 μ 2 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ap-1 μ 2 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-69446 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

AP-1 μ 2 (N-19) is recommended for detection of Ap-1 μ 2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AP-1 μ 2 (N-19) is also recommended for detection of Ap-1 μ 2 in additional species, including equine and bovine.

Suitable for use as control antibody for AP-1 μ 2 siRNA (h): sc-72509, AP-1 μ 2 siRNA (m): sc-72510, AP-1 μ 2 shRNA Plasmid (h): sc-72509-SH, AP-1 μ 2 shRNA Plasmid (m): sc-72510-SH, AP-1 μ 2 shRNA (h) Lentiviral Particles: sc-72509-V and AP-1 μ 2 shRNA (m) Lentiviral Particles: sc-72510-V.

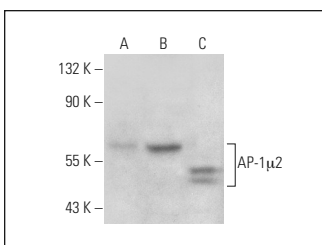
Molecular Weight of AP-1 μ 2: 47 kDa.

Positive Controls: AP-1 μ 2 (m): 293T Lysate: sc-118445 or COLO 320DM cell lysate: sc-2226.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



AP-1 μ 2 (N-19): sc-69446. Western blot analysis of AP-1 μ 2 expression in non-transfected 293T: sc-117752 (A), mouse Ap-1 μ 2 transfected 293T: sc-118445 (B) and COLO 320DM (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Peng, B., et al. 2012. Microarray-assisted pathway analysis identifies MT1X & NF κ B as mediators of TCRP1-associated resistance to cisplatin in oral squamous cell carcinoma. *PLoS ONE* 7: e51413.

RESEARCH USE

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