

AP-2 σ 1 (5-RY21): sc-134261

BACKGROUND

Adapter-related protein complex 2 (AP-2) is one of the two major Clathrin-associated adaptor complexes that links Clathrin to receptors in coated vesicles. It interacts with the cytoplasmic tail of membrane proteins, thereby leading to their selection and concentration. This complex has also been shown to bind polyphosphoinositides. Existing as a heterotetramer, AP-2 is comprised of two large chains, a medium chain and a small chain. Adapter-related protein complex 2 subunit σ -1 (AP-2 σ 1), also known as Clathrin coat assembly protein AP17 or σ 2-adaptin, is the 142 amino acid protein small chain of the AP-2 complex. Localized to the cytoplasmic side of the cell membrane, two named isoforms of AP-2 σ 1 exist as a result of alternative splicing events.

REFERENCES

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2. Brodsky, F.M., et al. 1991. Clathrin light chains: arrays of protein motifs that regulate coated-vesicle dynamics. *Trends Biochem. Sci.* 16: 208-213.
3. Pley, U. and Parham, P. 1993. Clathrin: its role in receptor-mediated vesicular transport and specialized functions in neurons. *Crit. Rev. Biochem. Mol. Biol.* 28: 431-464.
4. Winterpacht, A., et al. 1996. Human CLAPS2 encoding AP17, a small chain of the Clathrin-associated protein complex: cDNA cloning and chromosomal assignment to 19q13.2→q13.3. *Cytogenet. Cell Genet.* 75: 132-135.
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7. Daub, H., et al. 2008. Kinase-selective enrichment enables quantitative phosphoproteomics of the kinome across the cell cycle. *Mol. Cell* 31: 438-448.
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CHROMOSOMAL LOCATION

Genetic locus: AP2S1 (human) mapping to 19q13.32; Ap2s1 (mouse) mapping to 7 A2.

SOURCE

AP-2 σ 1 (5-RY21) is a mouse monoclonal antibody raised against recombinant AP-2 σ 1 protein of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

AP-2 σ 1 (5-RY21) is recommended for detection of AP-2 σ 1 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for AP-2 σ 1 siRNA (h): sc-97710, AP-2 σ 1 siRNA (m): sc-155865, AP-2 σ 1 shRNA Plasmid (h): sc-97710-SH, AP-2 σ 1 shRNA Plasmid (m): sc-155865-SH, AP-2 σ 1 shRNA (h) Lentiviral Particles: sc-97710-V and AP-2 σ 1 shRNA (m) Lentiviral Particles: sc-155865-V.

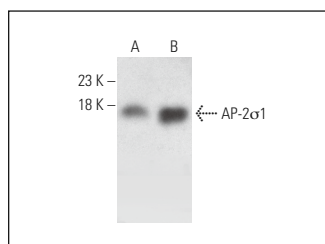
Molecular Weight of AP-2 σ 1: 17 kDa.

Positive Controls: human AP-2 σ 1 transfected 293T whole cell lysate, RPE-J cell lysate: sc-24771 or mouse brain extract: sc-2253.

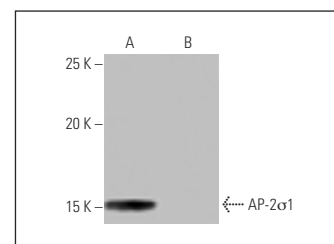
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



AP-2 σ 1 (5-RY21): sc-134261. Western blot analysis of AP-2 σ 1 expression in RPE-J whole cell lysate (A) and mouse brain tissue extract (B).



AP-2 σ 1 (5-RY21): sc-134261. Western blot analysis of AP-2 σ 1 expression in human AP-2 σ 1 transfected (A) and non-transfected (B) 293T whole cell lysates.

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 for detailed protocols and support products.