

AP-180 (34): sc-135834

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. The AP-1 and AP-2 adapter protein complexes consist of Clathrin binding Adaptin proteins. AP-180, also known as SNAP91 (synaptosomal-associated protein, 91 kDa homolog (mouse)) or CALM, is a 907 amino acid cell membrane protein that contains an ENTH (epsin N-terminal homology) domain. AP-180 binds to Clathrin triskelia via its N-terminal clathrin binding site, inducing assembly into 60-70 nm coats. Existing as three alternatively spliced isoforms, the gene encoding AP-180 maps to human chromosome 6q14.2 and mouse chromosome 9 E3.1.

REFERENCES

1. Robinson, M.S. 1989. Cloning of cDNAs encoding two related 100 kDa coated vesicle proteins (α -Adaptins). *J. Cell Biol.* 108: 833-842.
2. 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.
5. Morris, S.A., et al. 1993. Clathrin assembly protein AP180: primary structure, domain organization and identification of a Clathrin binding site. *EMBO J.* 12: 667-675.
6. Ball, C.L., et al. 1995. Expression and localization of α -Adaptin isoforms. *J. Cell Sci.* 108: 2865-2875.
7. Mellman, I. 1996. Endocytosis and molecular sorting. *Annu. Rev. Cell Dev. Biol.* 12: 575-625.
8. Dreyling, M.H., et al. 1996. The t(10;11)(p13;q14) in the U937 cell line results in the fusion of the AF10 gene and CALM, encoding a new member of the AP-3 Clathrin assembly protein family. *Proc. Natl. Acad. Sci. USA* 93: 4804-4809.

CHROMOSOMAL LOCATION

Genetic locus: SNAP91 (human) mapping to 6q14.2; Snap91 (mouse) mapping to 9 E3.1.

SOURCE

AP-180 (34) is a mouse monoclonal antibody raised against amino acids 706-896 of AP-180 of rat origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

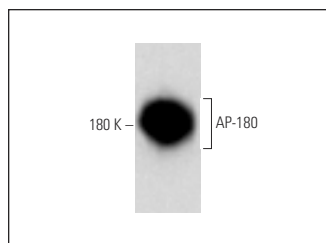
AP-180 (34) is recommended for detection of AP-180 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for AP-180 siRNA (h): sc-29698, AP-180 siRNA (m): sc-29699, AP-180 shRNA Plasmid (h): sc-29698-SH, AP-180 shRNA Plasmid (m): sc-29699-SH, AP-180 shRNA (h) Lentiviral Particles: sc-29698-V and AP-180 shRNA (m) Lentiviral Particles: sc-29699-V.

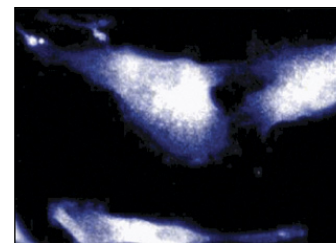
Molecular Weight of AP-180: 180 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, IMR-32 cell lysate: sc-2409 or rat brain extract: sc-2392.

DATA



AP-180 (34): sc-135834. Western blot analysis of AP-180 expression in rat cerebrum tissue extract.



AP-180 (34): sc-135834. Immunofluorescence staining of human endothelial cells showing membrane staining.

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. Not for resale.

PROTOCOLS

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