

# AP-180 (B-10): sc-393266

## 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 triskelion 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

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- Ponnambalam, S., et al. 1990. Conservation and diversity in families of coated vesicle adaptins. *J. Biol. Chem.* 265: 4814-4820.
- 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.
- Ball, C.L., et al. 1995. Expression and localization of  $\alpha$ -Adaptin isoforms. *J. Cell Sci.* 108: 2865-2875.
- Mellman, I. 1996. Endocytosis and molecular sorting. *Annu. Rev. Cell Dev. Biol.* 12: 575-625.
- 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 (B-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-27 at the N-terminus of AP-180 of mouse origin.

## STORAGE

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

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393266 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

AP-180 (B-10) is recommended for detection of AP-180 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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-180 (B-10) is also recommended for detection of AP-180 in additional species, including equine, canine, bovine, porcine and avian.

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.

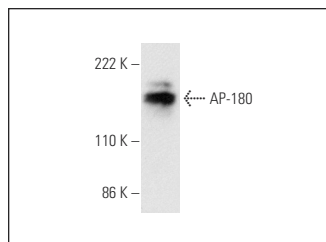
Molecular Weight of AP-180: 180 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or mouse brain extract: sc-2253.

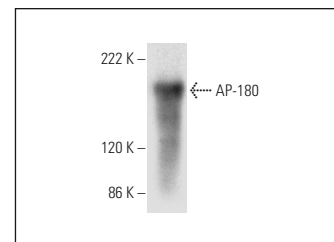
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



AP-180 (B-10): sc-393266. Western blot analysis of AP-180 expression in IMR-32 whole cell lysate.



AP-180 (B-10): sc-393266. Western blot analysis of AP-180 expression in mouse brain tissue extract.

## RESEARCH USE

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