Technical Data Sheet

Purified Mouse Anti-AP180

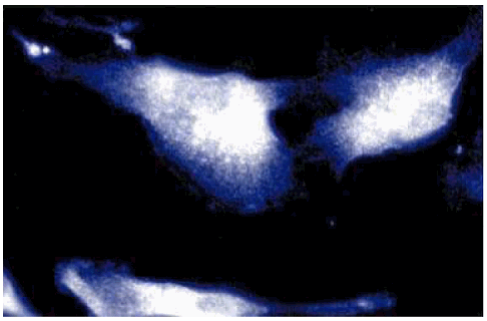
Product Information

Material Number:	**610469**
Alternate Name:	AP-3, F1-20, NP185, and pp155
Size:	50 µg
Clone:	34/AP180
Immunogen:	Rat AP180 aa. 706-896
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat Tested in Development: Mouse, Human
Target MW:	180 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

AP180, also known as AP-3, F1-20, NP185, and pp155, is one of four assembly proteins which are involved in the organization and assembly of clathrin triskelia in clathrin-coated vesicles. Two of these proteins, AP-1 and AP-2, exist as tetramers, while AP180 and auxilin are monomeric assembly proteins. The clathrin binding potential of AP180 is defined by several regions of the molecule, including the 30 kDa N-terminal domain, a central domain, and a 58 kDa C-terminal domain. Although clathrin binding occurs throughout the molecule, only the C-terminal domain is associated with both binding of clathrin and assembly of clathrin cages. The highly acidic central domain, which contains an uncharged alanine-rich segment, is thought to impart the irregular physical properties to this protein. AP180 is the only clathrin assembly protein specific for synapses and is thought to be involved in synaptic vesicle biogenesis and recycling. Furthermore, AP180 is bound by inositol-6-phosphate which has been shown to be closely regulated in neuronal cells by external stimuli.

Western blot analysis of AP180 on a rat cerebrum lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-AP180 antibody.*



Immunofluorescence staining of human endothelial cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

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Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Kalthoff C, Groos S, Kohl R, Mahrhold S, Ungewickell EJ. Clint: a novel clathrin-binding ENTH-domain protein at the Golgi. *Mol Biol Cell.* 2002; 13(11):4060-4073. (Biology: Immunofluorescence)

Morris SA, Schroder S, Plessmann U, Weber K, Ungewickell E. Clathrin assembly protein AP180: primary structure, domain organization and identification of a clathrin binding site. *EMBO J.* 1993; 12(2):667-675.(Biology)

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Ye W, Lafer EM. Clathrin binding and assembly activities of expressed domains of the synapse-specific clathrin assembly protein AP-3. *J Biol Chem.* 1995; 270(18):10933-10939.(Biology)