Technical Data Sheet

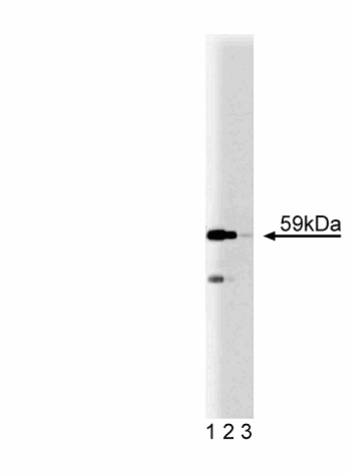
Purified Mouse Anti- APP-BP1

Product Information

Material Number:	**611864**
Alternate Name:	Amyloid Precursor Protein-Binding Protein 1
Size:	50 µg
Concentration:	250 µg/ml
Clone:	20/APP-BP1
Immunogen:	Human APP-BP1 aa. 348-464
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Mouse Tested in Development: Human, Dog, Rat
Target MW:	59 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Amyloid precursor protein (APP) gene encodes multiple APPs ranging from 695 to 770 amino acids. These proteins are processed into β-Amyloid peptides (39-43 amino acids), which form abnormal plaques in the cerebral cortex and blood vessel walls during Alzheimer's disease. The transmembrane form of APP is a putative cell surface receptor that possesses neurite-promoting activity, co-localizes with the plaques found in Alzheimer's disease, and is involved in synaptic vesicle recycling. APP binding protein 1 (APP-BP1) interacts with the C-terminus of APP, and is a relative of the ubiquitin-activating enzymes (E1). The structure of APP-BP1 includes a human Uba3 binding site (UBS) at amino acids 443 to 479. This site may be important for APP-BP1 regulation of the cell cycle through interactions with ubiquitinylation-related pathways. Transfection of APP-BP1 in cells with a ts41 mutation suppresses the abnormal S-phases observed in these cells in a hUba3- and hUbc12-dependent manner. In addition, APP-BP1 has been implicated in ubiquitinylation-dependent apoptosis in neurons. Thus, APP-BP1 may be a multi-functional APP-binding protein that regulates cell cycle dynamics.



Western blot analysis of APP-BP1 on a RSV-3T3 cell lysate. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti- APP-BP1 antibody.*

Preparation and Storage

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

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

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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
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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

Chen Y, McPhie DL, Hirschberg J, Neve RL. The amyloid precursor protein-binding protein APP-BP1 drives the cell cycle through the S-M checkpoint and causes apoptosis in neurons. *J Biol Chem.* 2000; 275(12):8929-8935.(Biology)

Chow N, Korenberg JR, Chen XN, Neve RL. APP-BP1, a novel protein that binds to the carboxyl-terminal region of the amyloid precursor protein. *J Biol Chem.* 1996; 271(19):11339-11346.(Biology)

Hori T, Osaka F, Chiba T. Covalent modification of all members of human cullin family proteins by NEDD8. *Oncogene.* 1999; 18(48):6829-6834.(Biology)