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APPBP2 Antibody

Catalog # ASC11724

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q92624
Other Accession	NP_006371, 18104962
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	66853
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	APPBP2 antibody can be used for detection of APPBP2 by Western blot at 0.5 - 1 □g/ml. Antibody can also be used for Immunohistochemistry starting at 5 □g/mL. For immunofluorescence start at 20 □g/mL.

Additional Information

Gene ID	10513
Other Names	Amyloid protein-binding protein 2, Amyloid beta precursor protein-binding protein 2, APP-BP2, Protein interacting with APP tail 1, APPBP2, KIAA0228, PAT1
Target/Specificity	APPBP2; APPBP2 antibody is human, mouse and rat reactive. At least two isoforms of APPBP2 are known to exist; this antibody will detect both isoforms.
Reconstitution & Storage	APPBP2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	APPBP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	APPBP2 {ECO:0000303|PubMed:26138980, ECO:0000312|HGNC:HGNC:622}
Function	Substrate-recognition component of a Cul2-RING (CRL2) E3 ubiquitin-protein ligase complex of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:29775578, PubMed:29779948). The C-degron recognized by the DesCEND pathway is usually a motif of less than ten residues and can be present in full-length proteins, truncated proteins or proteolytically cleaved forms (PubMed:29775578, PubMed:29779948). The CRL2(APPBP2) complex

	specifically recognizes proteins with a -Arg-Xaa- Xaa-Gly degron at the C-terminus, leading to their ubiquitination and degradation (PubMed:29775578, PubMed:29779948). The CRL2(APPBP2) complex mediates ubiquitination and degradation of truncated SELENOV selenoproteins produced by failed UGA/Sec decoding, which end with a -Arg-Xaa-Xaa-Gly degron (PubMed:26138980). May play a role in intracellular protein transport: may be involved in the translocation of APP along microtubules toward the cell surface (PubMed:9843960).
Cellular Location	Nucleus. Cytoplasm, cytoskeleton. Membrane; Peripheral membrane protein. Note=Associated with membranes and microtubules.

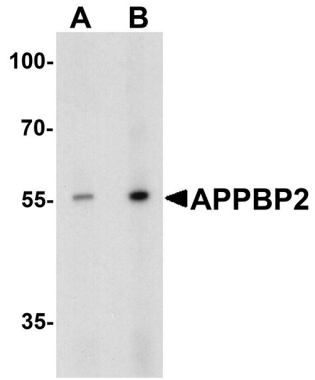
Background

The amyloid beta precursor protein (cytoplasmic tail) binding protein 2 (APPBP2), also known as PAT1, interacts with microtubules and is functionally associated with beta-amyloid precursor protein transport and/or processing (1). The beta-amyloid precursor protein is a cell surface protein with signal-transducing properties, and it is thought to play a role in the pathogenesis of Alzheimer's disease (2). APPBP2 has been found to be highly expressed in breast cancer (3).

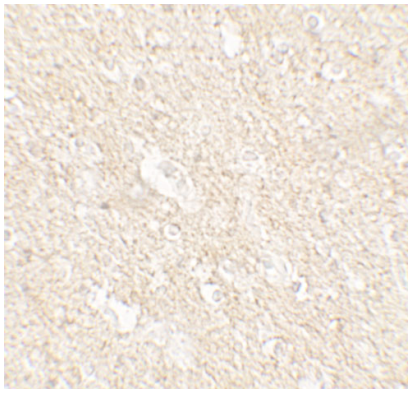
References

Zheng P, Eastman J, Vande Pol S, et al. PAT1, a microtubule-interacting protein, recognizes the basolateral sorting signal of amyloid precursor protein. Proc. Natl. Acad. Sci. USA 1994; 95:14745-50.
Selkoe DJ. Cell biology of the amyloid beta-protein precursor and the mechanism of Alzheimer's disease. Annu. Rev. Cell Biol. 1994; 10:373-403.
Li J, Yang Y, Peng Y, et al. Oncogenic properties of PPM1D located within a breast cancer amplification epicenter at 17q23. Nat. Genet. 2002; 31:133-4.

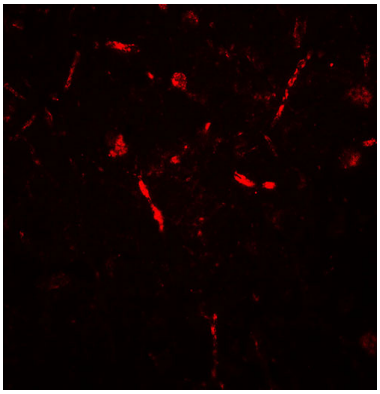
Images



Western blot analysis of APPBP2 in human brain tissue lysate with APPBP2 antibody at (A) 0.5 and (B) 1 µg/ml.



Immunohistochemistry of APPBP2 in human brain tissue with APPBP2 antibody at 5 µg/mL.



Immunofluorescence of APPBP2 in human brain tissue with APPBP2 antibody at 20 µg/mL.