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APBA1 Antibody
Catalog # ASC11506

Specification

APBA1 Antibody - Product Information

Application	**WB, IF**
Primary Accession	Q02410
Other Accession	NP_001154, 22035548
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**92 kDa KDa**
Application Notes	**APBA1 antibody can be used for detection of APBA1 by Western blot at 0.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

APBA1 Antibody - Additional Information

Gene ID **320**

Target/Specificity
APBA1; At least two alternatively spliced isoforms are known to exist; this antibody will detect both isoforms. This antibody is predicted to not cross-react with other APBA proteins.

Reconstitution & Storage
APBA1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
APBA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

APBA1 Antibody - Protein Information

Name APBA1

Synonyms MINT1, X11

Function
Putative function in synaptic vesicle exocytosis by binding to Munc18-1, an essential component of the synaptic vesicle exocytotic machinery. May modulate processing of the amyloid-beta precursor protein (APP) and hence formation of APP-beta. Component of the LIN-10- LIN-2-LIN-7 complex, which associates with the motor protein KIF17 to transport vesicles containing N-methyl-D-aspartate (NMDA) receptor subunit NR2B along microtubules (By similarity).

Cellular Location
Cytoplasm. Cytoplasm, perinuclear region. Nucleus. Note=Only about 5% of the protein is located in the nucleus

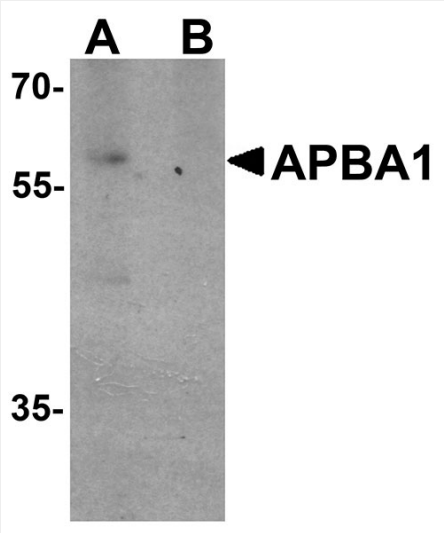
Tissue Location
Brain and spinal cord. Isoform 2 is expressed in testis and brain, but not detected in lung, liver or spleen

APBA1 Antibody - Protocols

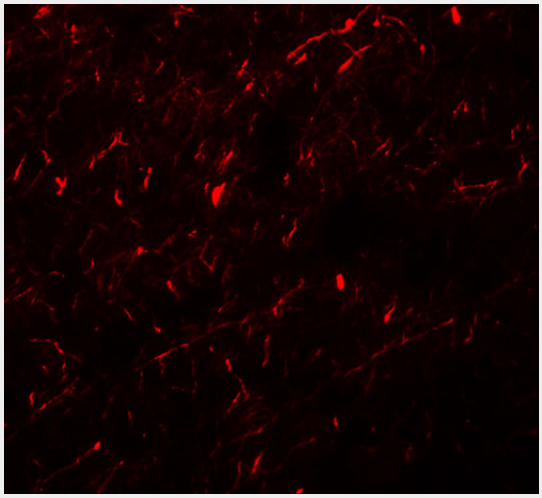
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

APBA1 Antibody - Images



Western blot analysis of APBA1 in rat brain tissue lysate with APBA1 antibody at 0.5 µg/ml in (A) the absence and (B) the presence of blocking peptide.



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Immunofluorescence of APBA1 in human brain tissue with APBA1 antibody at 20 µg/mL.

APBA1 Antibody - Background

APBA1 Antibody: The Amyloid beta 4 (A4) precursor protein-binding family A member 1 (APBA1) is a member of the X11 protein family and a neuronal adapter protein that interacts with the Alzheimer's disease amyloid precursor protein (APP). APBA1 stabilizes APP and inhibits production of proteolytic APP fragments including the Aβ peptide that is deposited in the brains of Alzheimer's disease patients. It is thought to be involved in signal transduction processes and is a putative vesicular trafficking protein in the brain that can form a complex with the potential to couple synaptic vesicle exocytosis to neuronal cell adhesion. APBA1 can also bind to CASK, a multidomain scaffolding protein involved in brain development and synapse formation.

APBA1 Antibody - References

Borg JP, Ooi J, Levy E, et al. The phosphotyrosine interaction domains of X11 and FE65 bind to distinct sites on the YENPTY motif of amyloid precursor protein. Mol. Cell. Biol. 1996; 16:6229-41.
Mueller HT, Borg JP, Margolis B, et al. Modulation of amyloid precursor protein metabolism by X11alpha/Mint1. A deletion analysis of protein-protein interaction domains. J. Biol. Chem. 2000; 275:39302-6.
Maximov A, Sudhof TC, and Bezprozvanny I. Association of neuronal calcium channels with modular adaptor proteins. J. Biol. Chem. 1999; 274:24453-6
Stafford RL, Ear J, Knight MJ, et al. The molecular basis of the Caskin1 and Mint1 interaction with CASK. J. Mol. Biol. 2011; 412:3-13.