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Goat Anti-BIN1 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1155a

Specification

Goat Anti-BIN1 Antibody - Product Information

Application	**WB, E**
Primary Accession	O00499
Other Accession	NP_647601, 274, 30948 (mouse), 117028 (rat)
Reactivity	**Human**
Predicted	**Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**64699**

Goat Anti-BIN1 Antibody - Additional Information

Gene ID 274

Other Names
Myc box-dependent-interacting protein 1, Amphiphysin II, Amphiphysin-like protein, Box-dependent myc-interacting protein 1, Bridging integrator 1, BIN1, AMPHL

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-BIN1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-BIN1 Antibody - Protein Information

Name BIN1

Synonyms AMPHL

Function
Is a key player in the control of plasma membrane curvature, membrane shaping and membrane remodeling. Required in muscle cells for the formation of T-tubules, tubular invaginations of the plasma membrane that function in depolarization-contraction coupling (PubMed:24755653). Is a negative regulator of endocytosis (By similarity). Is also involved in the regulation of intracellular vesicles sorting, modulation of BACE1 trafficking and the control of amyloid-beta production (PubMed:27179792). In neuronal circuits, endocytosis regulation may influence the internalization of PHF-tau aggregates (By similarity). May be involved in the regulation of MYC activity and the control cell proliferation (PubMed:8782822). Has actin bundling activity and stabilizes actin filaments against depolymerization in vitro (PubMed:28893863).

Cellular Location
[Isoform BIN1]: Nucleus. Cytoplasm Endosome {ECO:0000250|UniProtKB:O08539}. Cell membrane, sarcolemma, T- tubule {ECO:0000250|UniProtKB:O08839}

Tissue Location
Ubiquitous. Highest expression in the brain and muscle (PubMed:9182667). Expressed in oligodendrocytes (PubMed:27488240). Isoform IIA is expressed only in the brain, where it is detected in the gray matter, but not in the white matter (PubMed:27488240). Isoform BIN1 is widely expressed with highest expression in skeletal muscle.

Goat Anti-BIN1 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

Goat Anti-BIN1 Antibody - Images

AF1155a (0.1 µg/ml) staining of Human Skeletal Muscle lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence

Goat Anti-BIN1 Antibody - Background

This gene encodes several isoforms of a nucleocytoplasmic adaptor protein, one of which was initially identified as a MYC-interacting protein with features of a tumor suppressor. Isoforms that are expressed in the central nervous system may be involved in synaptic vesicle endocytosis and may interact with dynanim, synaptojanin, endophilin, and clathrin. Isoforms that are expressed in muscle and ubiquitously expressed isoforms localize to the cytoplasm and nucleus and activate a caspase-independent apoptotic process. Studies in mouse suggest that this gene plays an important role in cardiac muscle development. Alternate splicing of the gene results in ten transcript variants encoding different isoforms. Aberrant splice variants expressed in tumor cell lines have also been described.

Goat Anti-BIN1 Antibody - References

Genetic variation and neuroimaging measures in Alzheimer disease. Biffi A, et al. Arch Neurol, 2010 Jun. PMID 20558387.
Genome-wide analysis of genetic loci associated with Alzheimer disease. Seshadri S, et al. JAMA, 2010 May 12. PMID 20460622.
Association of genetic variants with hemorrhagic stroke in Japanese individuals. Yoshida T, et al. Int J Mol Med, 2010 Apr. PMID 20198315.
BIN1 localizes the L-type calcium channel to cardiac T-tubules. Hong TT, et al. PLoS Biol, 2010 Feb 16. PMID 20169111.
Phenotype of a patient with recessive centronuclear myopathy and a novel BIN1 mutation. Claeys KG, et al. Neurology, 2010 Feb 9. PMID 20142620.