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BIN1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP14348c

Specification

BIN1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession O00499

BIN1 Antibody (Center) Blocking Peptide - 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

BIN1 Antibody (Center) Blocking Peptide - 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.

BIN1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

BIN1 Antibody (Center) Blocking Peptide - Images

BIN1 Antibody (Center) Blocking Peptide - Background

This gene encodes several isoforms of a nucleocytoplasmicadaptor protein, one of which was initially identified as aMYC-interacting protein with features of a tumor suppressor.Isoforms that are expressed in the central nervous system may beinvolved in synaptic vesicle endocytosis and may interact withdynanim, synaptojanin, endophilin, and clathrin. Isoforms that areexpressed in muscle and ubiquitously expressed isoforms localize tothe cytoplasm and nucleus and activate a caspase-independentapoptotic process. Studies in mouse suggest that this gene plays animportant role in cardiac muscle development. Alternate splicing ofthe gene results in ten transcript variants encoding differentisoforms. Aberrant splice variants expressed in tumor cell lineshave also been described.

BIN1 Antibody (Center) Blocking Peptide - References

Biffi, A., et al. Arch. Neurol. 67(6):677-685(2010)Seshadri, S., et al. JAMA 303(18):1832-1840(2010)Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010)Claeys, K.G., et al. Neurology 74(6):519-521(2010)Hong, T.T., et al. PLoS Biol. 8 (2), E1000312 (2010) :