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Mouse Monoclonal Antibody to BIN1

Purified Mouse Monoclonal Antibody
Catalog # AO2385a

Product Information

Application	WB, IHC, FC, E
Primary Accession	O00499
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	3B6F10
Isotype	Mouse IgG2b
Calculated MW	64699
Description	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 dynamin, 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 several transcript variants encoding different isoforms. Aberrant splice variants expressed in tumor cell lines have also been described.;
Immunogen	Purified recombinant fragment of human BIN1 (AA: 189-398) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide
Application Note	ELISA: 1/10000; WB: 1/500 - 1/2000; IHC: 1/200 - 1/1000; FCM: 1/200 - 1/400

Additional Information

Gene ID	274
Other Names	AMPH2; AMPHL; SH3P9
Dilution	WB~~1:1000 IHC~~1:100~500 FC~~1:10~50 E~~N/A
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	Mouse Monoclonal Antibody to BIN1 is for research use only and not for use in diagnostic or therapeutic procedures.

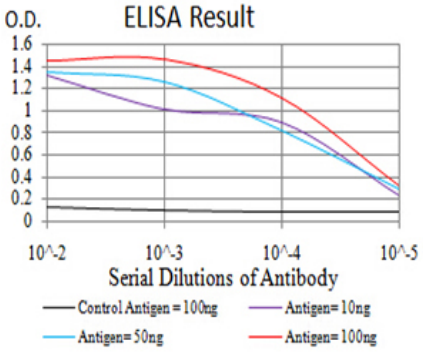
Protein Information

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.

References

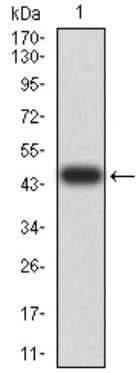
1.Trends Mol Med. 2013 Oct;19(10):594-603. ; 2.Mol Med. 2012 May 9;18:507-18. ;

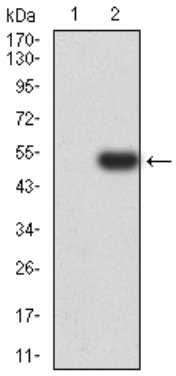
Images



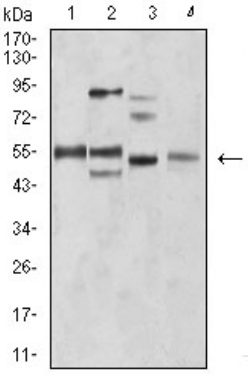
Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

Western blot analysis using BIN1 mAb against human BIN1 (AA: 189-398) recombinant protein. (Expected MW is 47.1 kDa)

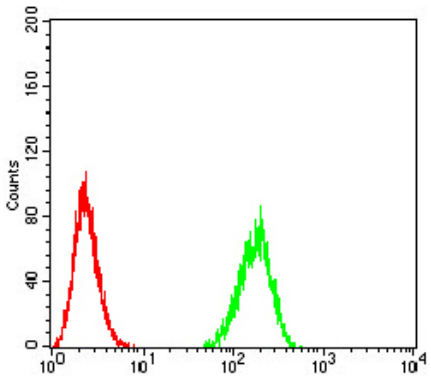




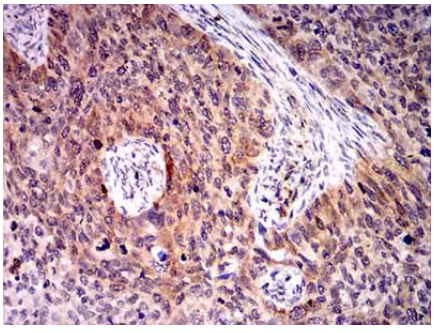
Western blot analysis using BIN1 mAb against HEK293 (1) and BIN1 (AA: 189-398)-hIgGFc transfected HEK293 (2) cell lysate.



Western blot analysis using BIN1 mouse mAb against C2C12 (1), A431 (2), HEK293 (3), and MCF-7 (4) cell lysate.



Flow cytometric analysis of Hela cells using BIN1 mouse mAb (green) and negative control (red).



Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using BIN1 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.