

**Mouse Monoclonal Antibody to BIN1**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2384a****Specification**

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**Mouse Monoclonal Antibody to BIN1 - Product Information**

Application	<b>WB, FC, E</b>
Primary Accession	<a href="#">O00499</a>
Reactivity	<b>Human, Mouse</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>Mouse IgG2b</b>
Calculated MW	<b>64.7kDa KDa</b>

**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; FCM: 1/200 - 1/400

**Mouse Monoclonal Antibody to BIN1 - Additional Information**

**Gene ID** 274

**Other Names**

AMPH2; AMPHL; SH3P9

**Dilution**

WB~~1:1000  
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.

## Mouse Monoclonal Antibody to BIN1 - 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:<a href="http://www.uniprot.org/citations/24755653" target="\_blank">24755653</a>). 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:<a href="http://www.uniprot.org/citations/27179792" target="\_blank">27179792</a>). 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:<a href="http://www.uniprot.org/citations/8782822" target="\_blank">8782822</a>). Has actin bundling activity and stabilizes actin filaments against depolymerization in vitro (PubMed:<a href="http://www.uniprot.org/citations/28893863" target="\_blank">28893863</a>).

### Cellular Location

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

### Tissue Location

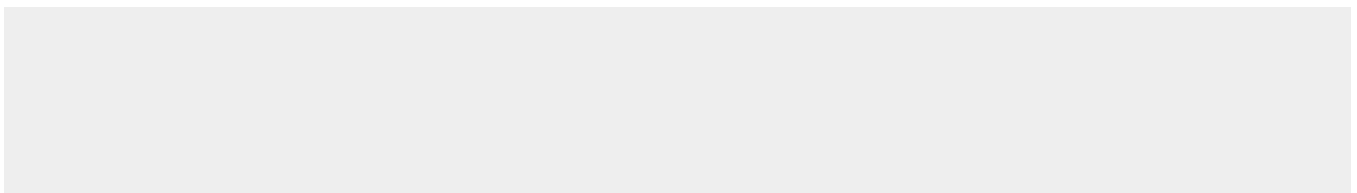
Ubiquitous. Highest expression in the brain and muscle (PubMed:9182667). Expressed in oligodendrocytes (PubMed:27488240). Isoform IIA is expressed only in the brain, where it is detected in the gray matter, but not in the white matter (PubMed:27488240). Isoform BIN1 is widely expressed with highest expression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

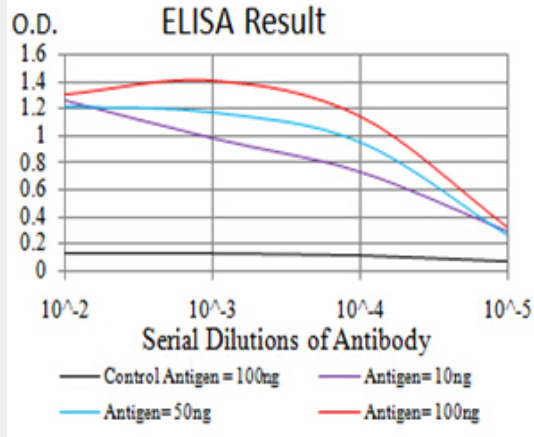
## Mouse Monoclonal Antibody to BIN1 - Protocols

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

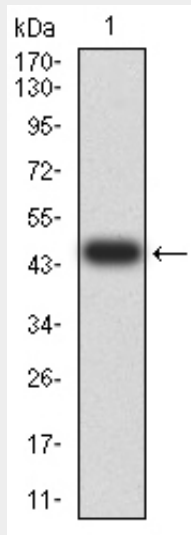
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Mouse Monoclonal Antibody to BIN1 - Images

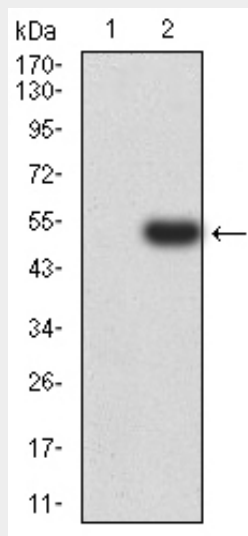




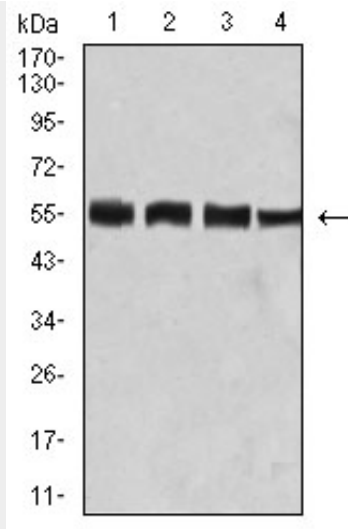
Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)



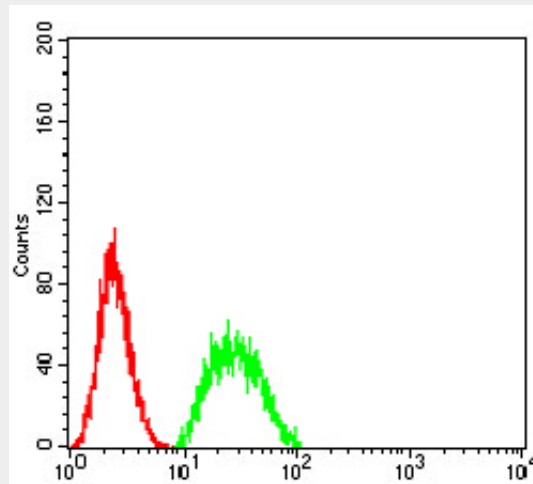
Western blot analysis using BIN1 mAb against human BIN1 (AA: 189-398) recombinant protein. (Expected MW is 47.1 kDa)



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 Hela (1), C2C12 (2), A431 (3), and HEK293 (4) cell lysate.



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

#### Mouse Monoclonal Antibody to BIN1 - References

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