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Datasheet for 200-301-E63S

BIN1 Antibody

Overview

Description:	Anti-BIN1 (MOUSE) Monoclonal Antibody - 200-301-E63S
Item No.:	200-301-E63S
Size:	25 µL
Applications:	ELISA, IHC, WB
Reactivity:	Mouse
Host Species:	Mouse

Product Details

Background:	Bin1 is a conserved member of the BAR family of genes that have been implicated in diverse cellular processes including endocytosis, actin organization, programmed cell death, stress responses, and transcriptional control. The first mammalian BAR protein to be discovered, Amphiphysin I (AmphI), was identified in an immunoscreen for proteins associated with the plasma membranes of synaptic neurons, functions in the control of clathrin-dependent synaptic vesicle endocytosis. The mammalian Bin1 gene was first identified in a two hybrid screen for polypeptides that bind to the N-terminal Myc box 1 (MB1) portion of the c-Myc oncoprotein. Bin1 is similar to AmphI in overall structure, with an N-terminal BAR domain and a C-terminal SH3 domain. However, the Bin1 gene is more complex than the AmphI gene, encoding at least seven different splice variants that differ widely in subcellular localization, tissue distribution, and ascribed functions. Alternate splicing of the Bin1 gene results in ten transcript variants encoding different isoform. Bin1 is expressed ubiquitously in mammalian cells. Certain splice variants of Bin1 are expressed in the neurons, muscle cells or tumor cells.) Bin1 may act with cancer suppressor and inhibits malignant cell transformation. Studies in mouse suggest that this gene plays an important role in cardiac muscle development. Bin1 has also been implicated in Alzheimer disease and cardiac disease. Defects in BIN1 are the cause of centronuclear myopathy autosomal recessive; also known as autosomal recessive myotubular myopathy.
Synonyms:	mouse anti-BIN1 Antibody, AMPHL, Myc box-dependent-interacting protein 1, Amphiphysin II, Amphiphysin-like protein, Box-dependent myc-interacting protein 1, Bridging integrator 1, BIN 1, BIN-1, BIN1 antibody, anti-BIN1 antibody
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	2F11

Format:	IgG1

Target Details

Gene Name:	BIN1
Reactivity:	Mouse
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-BIN1 (MOUSE) Monoclonal Antibody was produced in mouse by repeated immunizations with chimeric protein that encoded the human BIN1 BAR domain followed by hybridoma development.
Purity/Specificity:	Anti-BIN1 was purified from clarified mouse ascetic fluid by Protein A chromatography followed by extensive dialysis against the buffer stated above. BIN1 antibody is specific for human BIN1 protein. A BLAST analysis was used to suggest cross-reactivity with BIN1 from human and mouse sources based on 100% homology with the immunizing sequence. Cross-reactivity with BIN1 from other sources has not been determined.
Relevant Links:	• UniProtKB - O00499 • NCBI - NP_004296.1 • GeneID - 274

Application Details

Tested Applications:	ELISA, IHC, WB
Application Note:	Anti-BIN1 antibody has been tested for use in Western Blot, ELISA, IP, and IHC. This antibody is suitable for. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000-1:50000
IHC:	1:100-1:500
IP:	10-100 µL
WB:	1:500-1:1500

Formulation

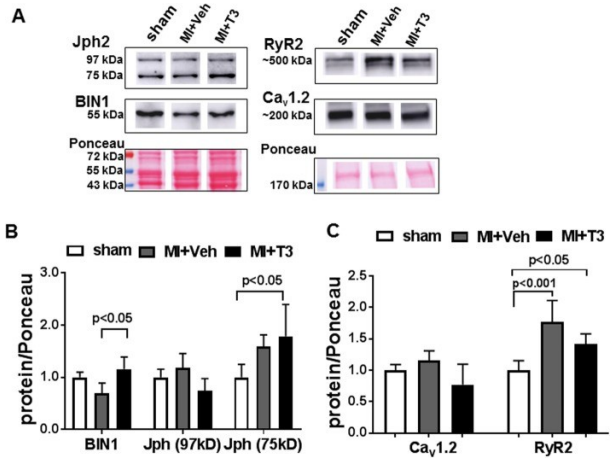
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm

Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

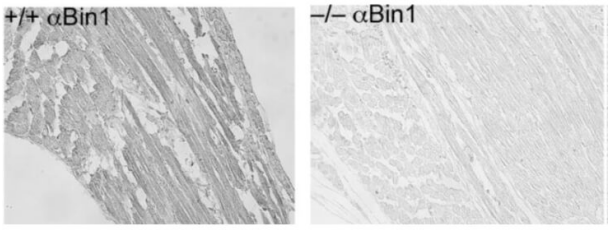
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

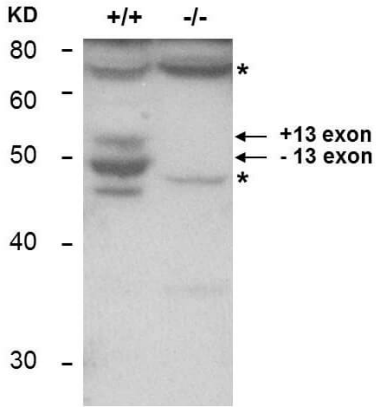
Images



Western Blot
Immunoblot analysis of T-tubule and SR proteins. a Representative immunoblots of microsomal fractions from LV tissues of each study group that were probed with anti-BIN1, Jph2, Cav1.2 and RyR2 antibodies. Observed molecular weights (kDa) of each protein are indicated. Ponceau red staining of the immunoblots are shown with molecular weight markers. b,c Bar graphs show the quantitation of the luminescence intensity of the indicated protein bands, normalized to Ponceau red staining and expressed relative to the mean sham values. Values are mean ± SD for n = 4–6 hearts/group. Statistical analysis using one-way ANOVA with post-hoc Tukey's multiple group comparisons; p-values are indicated.
Fig 6.
PMID: 31810440



Immunohistochemistry
Immunohistochemistry of Mouse Anti-BIN1 antibody. Tissue: skeletal muscle from BIN-1 wild type (+/+) and null (-/-) mouse. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: BIN-1 antibody for 1hr at RT. Secondary antibody: Peroxidase mouse secondary antibody at 1:10,000 for 45 min at RT. Localization: BIN1 is nuclear and cytoplasmic. Staining: BIN1 as precipitated brown signal.



Western Blot
Western Blot of Mouse Anti-BIN-1 antibody. Lane 1: Keratinocyte derived from Bin-1 wild type. Lane 2: Keratinocyte derived from Bin-1 null mice. Load: 35 µg per lane. Primary antibody: BIN-1 antibody at 1:400 for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 1xPBS, 0.4% Tween-20 (PBS/T) overnight at 4°C. Bin1 isoforms (+exon13, -exon13). *indicates non-specific signal.

References

- An S et al. Adverse transverse-tubule remodeling in a rat model of heart failure is attenuated with low-dose triiodothyronine treatment. *Mol Med.* (2019)

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