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BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-BIN1 Monoclonal Antibody

**Catalog Number:** M01551-2

## About BIN1

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 and play a role in cancer suppression. Studies in muscle cells suggest that Bin1 expression, structure, and localization are tightly regulated during muscle differentiation and suggested that Bin1 plays a functional role in the differentiation process. Defects in BIN1 are the cause of centronuclear myopathy autosomal recessive; also known as autosomal recessive myotubular myopathy.

## Overview

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| Product Name | Anti-BIN1 Monoclonal Antibody |
| Reactive Species | Human, Mouse |
| Description | Boster Bio Anti-BIN1 Monoclonal Antibody (Catalog # M01551-2). Tested in IF, WB applications. This antibody reacts with Human, Mouse. |
| Application | IF, WB |
| Clonality | Monoclonal Clone: 99F |
| Formulation | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide |
| Storage Instructions | Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.) |
| Host | Mouse |
| Uniprot ID | O00499 |

## Technical Details

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| Immunogen | Anti-BIN1 (MOUSE) Monoclonal Antibody was produced in mouse by repeated immunizations with BIN1 polypeptide followed by hybridoma development. |
| Predicted Reactive Species | Chimpanzee, Hamster |

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| Cross Reactivity | Detects ~85kDa. |
| Isotype | IgG |
| Form | Liquid (sterile filtered) |
| Concentration | 1 mg/ml |
| Purification | Anti-BIN1 was purified from concentrated tissue culture supernate by Protein G 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. |
| Suggested Dilutions | Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.<br>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.<br>Some PubMed article(s) citing the expression level of this target are as follows:<br>Boster Bio's internal QC testing used:<br>ELISA: 1:5000 - 1:50000<br>IF Microscopy: 1:100-1:500<br>IP: 10-100 µL<br>WB: 1:500-1:1500 |

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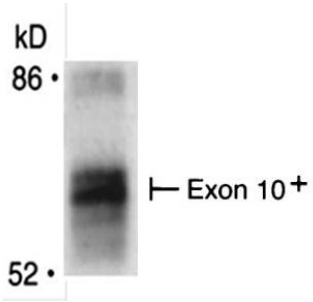
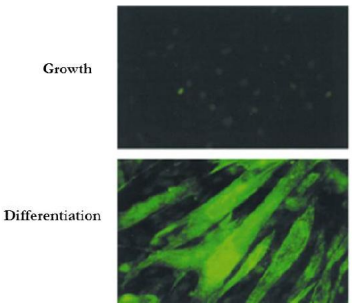
# Anti-BIN1 Monoclonal Antibody (M01551-2) Images




Immunoprecipitation of Mouse anti-BINBin1 is recognized by using Bin1 (Exon 10 specific, 99F) monoclonal antibody.Lane 1: BIN 1Lane 2:none.Load:35




Immunofluorescence Microscopy of Mouse Anti-BIN1 Antibody.Cells: C2C12 cells during growth or differentiation.Fixation:0.5% PFA.Antigen retrieval:not required.Primary antibody: BIN-1 (Exon 10 specific, 99F) monoclonal antibody.Secondary antibody:mouse secondary antibody at 1:10,000 for 45 min at RT.Localization:BIN1 is nuclear and cytoplasmic.Staining:BIN 1 as green fluorescent signal.

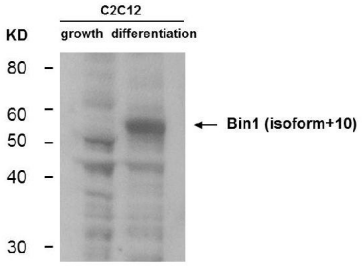



Figure 3. Western blot analysis of BIN1 using anti-BIN1 antibody (M01551-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BIN1 antigen affinity purified polyclonal antibody (Catalog # M01551-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-Mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # SA1021) with Tanon 5200 system. A specific band was detected for BIN1.