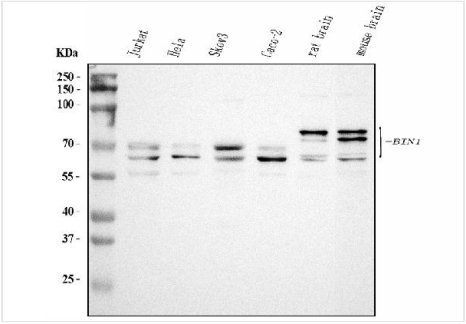
BIN1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

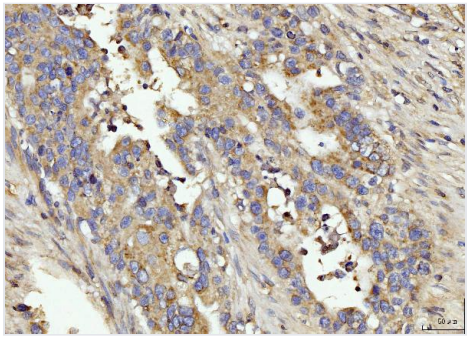
Product Name	BIN1, Polyclonal Antibody
Full Product Name	Anti-BIN1 Antibody Picoband
Product Gene Name	anti-BIN1 antibody
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Assay Type	Sandwich
Samples	Cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA)
Detection Range	31.2 pg/ml - 2,000 pg/ml
Sensitivity	<2 pg/ml
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (lot specific)
Specificity	Natural and recombinant Human CCL24
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.
Inter-assay Precision	Inter-Assay Precision (Precision across assays): Three samples of known concentration were tested in separate assays to assess inter-assay precision.
Intra-assay Precision	Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested on one plate to assess intra-assay precision.
Molecular Weight	593
OMIM	phenotype 601248
3D Structure	ModBase 3D Structure for O00499
Product Categories/Family for anti-BIN1 antibody	Primary Antibodies, Rabbit Polyclonal Antibodies
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-BIN1 antibody	ELISA (EIA), Flow Cytometry (FC/FACS), Immunofluorescence (IF), Immunohistochemistry (IHC), Immunocytochemistry (ICC), Western Blot (WB)

Application Notes for anti-BIN1 antibody	WB: 0.25-0.5 ug/ml, Human, Mouse, Rat IHC-P: 2-5 ug/ml, Human ICC/IF: 5 ug/ml, Human FC/FACS: 1-3 ug/1x10^6 cells, Human Direct ELISA: 0.1-0.5 ug/ml, Human Tested Species: In-house tested species with positive results. Enhanced Chemiluminescent Kit with anti-Rabbit IgG (#MBS176460) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (#MBS176453) for IHC(P) and ICC.
Related Product Information for anti-BIN1 antibody	Background: Chemokine(C-C motif) ligand 24(CCL24) also known as myeloid progenitor inhibitory factor 2(MPIF-2) or eosinophil chemotactic protein 2(eotaxin-2) is a protein that in humans is encoded by the CCL24 gene. By use of PCR analysis of somatic cell hybrid DNAs, radiation hybrid mapping, and a chromosome 7-specific YAC library, mapped the SCYA24 gene to chromosome 7q11.23. CCL24 is a small cytokine belonging to the CC chemokine family. CCL24 interacts with chemokine receptor CCR3 to induce chemotaxis in eosinophils.3 This chemokine is also strongly chemotactic for resting T lymphocytes and slightly chemotactic for neutrophils. Principle of the Assay: The Quick Picokine™ Human CCL24 Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid phase immunoassay specially designed to measure Human CCL24 in cell culture supernatants, cell lysates, serum and plasma (heparin, EDTA). It uses our proprietary Quick ELISA technology. Quick ELISA technology employs capture antibodies conjugated to an affinity tag that is recognized by the polyclonal antibody used to coat our Quick ELISA plates. This approach to sandwich ELISA allows the formation of the antibody-analyte sandwich complex in a single step, significantly reducing assay time. The kit contains recombinant Human CCL24 with immunogen: Expression system for standard: E.coli; Immunogen sequence: V27-C119. To measure Human CCL24, add standards and samples to the wells, then add antibody cocktail. Wash the wells with PBS or TBS buffer, and add TMB. TMB is an HRP substrate and will be catalyzed to produce a blue color product, which changes into yellow after adding the acidic stop solution. The absorbance of the yellow product is linearly proportional to Human CCL24 in the sample. Read the absorbance of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Human CCL24 in the sample.
Other Notes	Small volumes of anti-BIN1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BIN1 purchase	MBS1754933 is an antibody targeting BIN1. Also known as Anti-BIN1 Antibody Picoband. Reactive in Human, Mouse, Rat. Host: Rabbit.



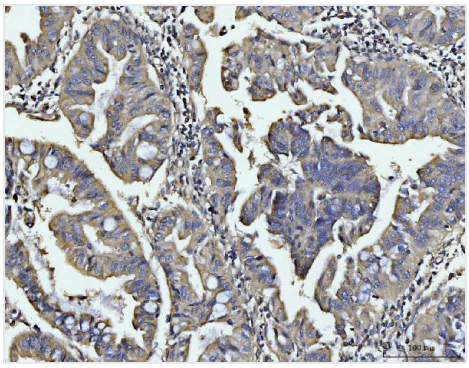
Western Blot (WB) of anti-BIN1 antibody

Figure 1. Western blot analysis of BIN1 using anti-BIN1 antibody (MBS1754933).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 30 ug of sample under reducing conditions.Lane 1: human Jurkat whole cell lysates,Lane 2: human Hela whole cell lysates,Lane 3: human Skov3 whole cell lysates,Lane 4: human Caco-2 whole cell lysates,Lane 5: rat brain tissue lysates,Lane 6: mouse brain tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 (#MBS1754933) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for BIN1 at approximately 65-80 kDa. The expected band size for BIN1 is at 65-80 kDa.



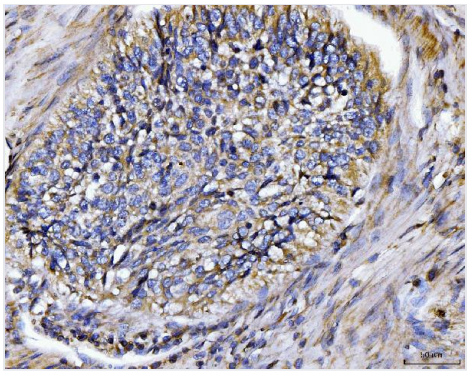
Immunohistochemistry (IHC) of anti-BIN1 antibody

Figure 2. IHC analysis of BIN1 using anti-BIN1 antibody (MBS1754933).BIN1 was detected in a paraffin-embedded section of human appendiceal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-BIN1 Antibody (MBS1754933) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



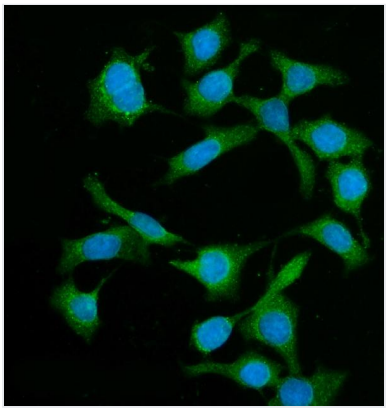
Immunohistochemistry (IHC) of anti-BIN1 antibody

Figure 3. IHC analysis of BIN1 using anti-BIN1 antibody (MBS1754933).BIN1 was detected in a paraffin-embedded section of human gastric adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-BIN1 Antibody (MBS1754933) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



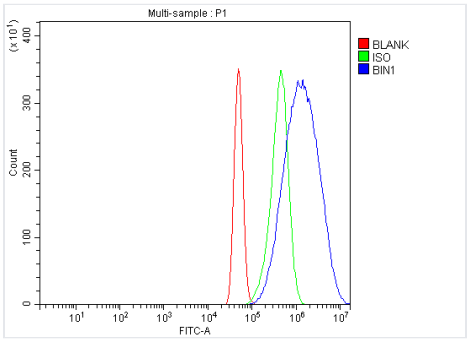
Immunohistochemistry (IHC) of anti-BIN1 antibody

Figure 4. IHC analysis of BIN1 using anti-BIN1 antibody (MBS1754933).BIN1 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-BIN1 Antibody (MBS1754933) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) with DAB as the chromogen.



Immunofluorescence (IF) of anti-BIN1 antibody

Figure 5. IF analysis of BIN1 using anti-BIN1 antibody (MBS1754933).BIN1 was detected in an immunocytochemical section of Caco-2 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-BIN1 Antibody (MBS1754933) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG (MBS177405) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry (FC/FACS) of anti-BIN1 antibody

Figure 6. Flow Cytometry analysis of A431 cells using anti-BIN1 antibody (MBS1754933).Overlay histogram showing A431 cells stained with MBS1754933 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BIN1 Antibody (MBS1754933, 1 ug/1x10^6 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG (MBS177405, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BIN1. It may not necessarily be applicable to this product.

NCBI GI #	14916535
NCBI GeneID	274
NCBI Accession #	O00499.1
UniProt Primary Accession #	O00499
UniProt Secondary Accession #	O00297; O00545; O43867; O60552; O60553; O60554; O60555; O75514; O75515; O75516; O75517
UniProt Related Accession #	O00499
NCBI Official Full Name	Myc box-dependent-interacting protein 1
NCBI Official Synonym Full Names	bridging integrator 1
NCBI Official Symbol	BIN1

NCBI Official Synonym Symbols	AMPH2; AMPHL; SH3P9
UniProt Protein Name	Myc box-dependent-interacting protein 1
UniProt Synonym Protein Names	Amphiphysin II; Amphiphysin-like protein; Box-dependent myc-interacting protein 1; Bridging integrator 1
Protein Family	Myc box-dependent-interacting protein
UniProt Gene Name	BIN1
UniProt Synonym Gene Names	AMPHL
UniProt Entry Name	BIN1_HUMAN
NCBI Protein Information	myc box-dependent-interacting protein 1; amphiphysin II; amphiphysin-like protein; box dependant MYC interacting protein 1; box-dependent myc-interacting protein 1
NCBI Summary for BIN1	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 ten transcript variants encoding different isoforms. Aberrant splice variants expressed in tumor cell lines have also been described. [provided by RefSeq, Sep 2011]
UniProt Comments for BIN1	BIN1: May be involved in regulation of synaptic vesicle endocytosis. May act as a tumor suppressor and inhibits malignant cell transformation. Defects in BIN1 are the cause of centronuclear myopathy type 2 (CNM2). A congenital muscle disorder characterized by progressive muscular weakness and wasting involving mainly limb girdle, trunk, and neck muscles. It may also affect distal muscles. Weakness may be present during childhood or adolescence or may not become evident until the third decade of life. Ptosis is a frequent clinical feature. The most prominent histopathologic features include high frequency of centrally located nuclei in muscle fibers not secondary to regeneration, radial arrangement of sarcoplasmic strands around the central nuclei, and predominance and hypotrophy of type 1 fibers. 11 isoforms of the human protein are produced by alternative splicing. Protein type: Tumor suppressor; Cytoskeletal; Adaptor/scaffold; Vesicle Chromosomal Location of Human Ortholog: 2q14 Cellular Component: I band; synaptic vesicle; membrane; axon; T-tubule; cytoplasm; nerve terminal; Z disc; nucleus; actin cytoskeleton Molecular Function: identical protein binding; protein binding; GTPase binding; protein heterodimerization activity; protein complex binding; tau protein binding Biological Process: cell proliferation; muscle cell differentiation; viral reproduction; regulation of neuron differentiation; positive regulation of apoptosis; positive regulation of endocytosis; endocytosis; positive regulation of GTPase activity; positive regulation of astrocyte differentiation Disease: Myopathy, Centronuclear, 2
Research Articles on BIN1	**1.** BIN1 downregulation is linked to cancer progression and also correlates with ventricular cardiomyopathy and arrhythmia preceding heart failure. Increased BIN1 expression is linked to increased susceptibility for late-onset Alzheimer's disease. [review]
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