10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BIN1 Rabbit mAb

Catalog # AP75157

Product Information

Application	WB, IHC-P, FC
Primary Accession	O00499
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	64699

Additional Information

Gene ID	274
Other Names	BIN1
Dilution	WB~~1:500-1:1000 IHC-P~~N/A FC~~1:50-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

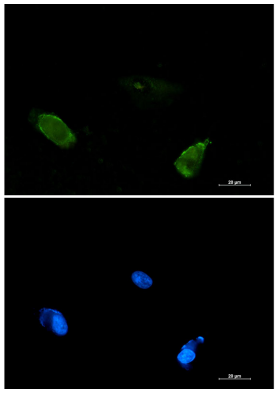
Name	BIN1
Synonyms	AMPHL
Function	Is a key player in the control of plasma membrane curvature, membrane shaping and membrane remodeling. Required in muscle cells for the formation of T-tubules, tubular invaginations of the plasma membrane that function in depolarization-contraction coupling (PubMed:24755653). 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.

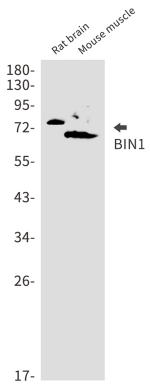
Background

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.

Images

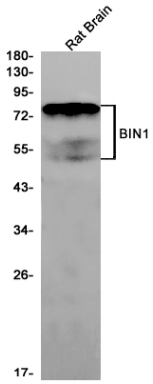


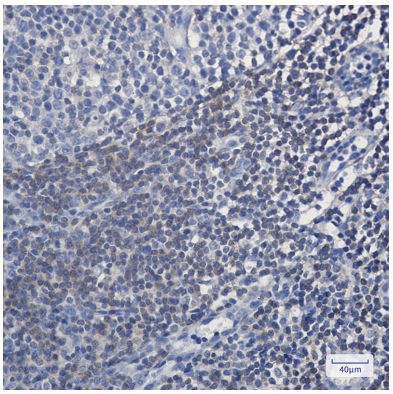
Immunocytochemistry analysis of BIN1 (green) in U87-MG using BIN1 antibody,and DAPI(blue).



Western blot analysis of BIN1 in rat brain, mouse muscle lysates using BIN1 antibody.

Western blot analysis of BIN1 in rat Brain lysates using BIN1 antibody





Immunohistochemistry analysis of paraffin-embedded Human tonsil using BIN1 antibody.High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.

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