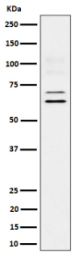
BIN1 Antibody / Bridging integrator 1 [clone 30B92] (FY12551)

Catalog No.	Formulation	Size
FY12551	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30B92
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O00499
Applications	Western blot: 1:500-1:2000 Immunohistochemistry: 1:50-1:200 Immunocytochemistry/Immunofluorescence: 1:50-1:200 Flow Cytometry: 1:50
Limitations	This BIN1 antibody is available for research use only.



Western blot analysis of BIN1 expression in human U87-MG cell lysate. BIN1 (~65 kDa predicted) was detected as multiple bands at ~65 and ~70 kDa, with faint higher species near ~100 kDa, consistent with known tissue-specific splice variants and post-translationally modified BIN1 isoforms.

Description

BIN1 antibody detects bridging integrator 1, a membrane remodeling protein encoded by the BIN1 gene. BIN1 belongs to the BAR domain protein family that senses and induces membrane curvature. It also contains SH3 and clathrin binding domains that connect membrane trafficking to actin cytoskeleton dynamics and signaling. BIN1 has multiple isoforms with tissue specific functions, including neuronal, muscle, and immune variants.

BIN1 antibody is widely used in neuroscience, muscle biology, and oncology. In neurons, BIN1 regulates synaptic vesicle endocytosis and interacts with tau protein, linking it to Alzheimer disease. In muscle cells, BIN1 supports T tubule formation and excitation contraction coupling, where its loss results in centronuclear myopathy. Altered BIN1 expression has also been implicated in cancer, where it acts as a tumor suppressor by modulating MYC signaling. By detecting BIN1, researchers can study how membrane remodeling proteins influence physiology and disease.

In western blot assays, BIN1 antibody detects isoforms of varying molecular weight across tissues. Immunohistochemistry maps BIN1 expression in brain, skeletal muscle, and heart, while immunofluorescence highlights localization at endocytic sites and T tubules. ELISA applications support quantification in experimental systems.

In Alzheimer disease, BIN1 variants are among the strongest genetic risk factors identified in genome wide association studies. BIN1 interacts with tau and endocytic machinery, contributing to pathological tau propagation and neurodegeneration. By applying BIN1 antibody, scientists can explore mechanisms linking endocytosis to dementia. In muscle biology, BIN1 mutations lead to defective T tubule biogenesis, disrupting calcium handling and muscle contraction. BIN1 antibody is therefore essential for both basic and translational research into neuromuscular disease.

BIN1 also functions in immune regulation and tumor suppression. Reduced BIN1 expression correlates with cancer progression and poor prognosis, highlighting its role as a negative regulator of oncogenic signaling. Its diverse functions across tissues make BIN1 antibody valuable for multiple research areas.

BIN1 antibody from NSJ Bioreagents provides dependable specificity for studying membrane remodeling, neuromuscular function, and disease. Its strong performance across applications supports high quality data in neuroscience, muscle biology, and oncology research.

Application Notes

Optimal dilution of the BIN1 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human BIN1 was used as the immunogen for the BIN1 antibody.

Storage

Store the BIN1 antibody at -20oC.

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