

Bassoon Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP54190

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UPA5
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	416469
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human BSN
Epitope Specificity	2901-3000/3926
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Cell junction, synapse, synaptosome. Cytoplasm, cytoskeleton. Note=Localized to the active zone of presynaptic density.
SUBUNIT	Interacts with ERC2/CAST1, RIMS1 and UNC13A. Part of a complex consisting of ERC2, RIMS1 and BSN.
Post-translational modifications	Myristoylated. The N-terminal myristoylation is not sufficient for presynaptic localization.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Neurotransmitters are released from a specific site in the axon terminal called the active zone, which is composed of synaptic vesicles and a meshwork of cytoskeleton underlying the plasma membrane. The protein encoded by this gene is thought to be a scaffolding protein involved in organizing the presynaptic cytoskeleton. The gene is expressed primarily in neurons in the brain. A similar gene product in rodents is concentrated in the active zone of axon terminals and tightly associated with cytoskeletal structures, and is essential for regulating neurotransmitter release from a subset of synapses. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	8927
Other Names	Protein bassoon, Zinc finger protein 231, BSN (HGNC:1117)
Target/Specificity	Exclusively expressed in brain.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

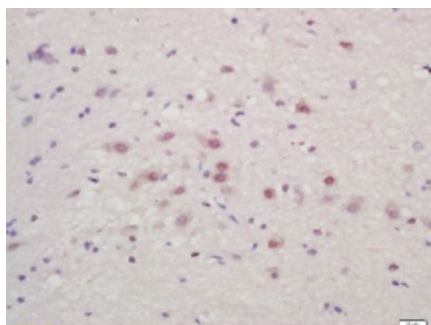
Name BSN ([HGNC:1117](#))

Function Scaffold protein of the presynaptic cytomatrix at the active zone (CAZ) which is the place in the synapse where neurotransmitter is released (PubMed:[12812759](#)). After synthesis, participates in the formation of Golgi-derived membranous organelles termed Piccolo-Bassoon transport vesicles (PTVs) that are transported along axons to sites of nascent synaptic contacts (PubMed:[19380881](#)). At the presynaptic active zone, regulates the spatial organization of synaptic vesicle cluster, the protein complexes that execute membrane fusion and compensatory endocytosis (By similarity). Also functions in processes other than assembly such as the regulation of specific presynaptic protein ubiquitination by interacting with SIAH1 or the regulation of presynaptic autophagy by associating with ATG5 (By similarity). Also mediates synapse to nucleus communication leading to reconfiguration of gene expression by associating with the transcriptional corepressor CTBP1 and by subsequently reducing the size of its pool available for nuclear import (By similarity). Inhibits the activity of the proportion of DAO enzyme that localizes to the presynaptic active zone, which may modulate synaptic transmission (By similarity).

Cellular Location Cytoplasm {ECO:0000250|UniProtKB:O88778}. Presynaptic active zone {ECO:0000250|UniProtKB:O88778}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:O88778}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:O88778}; Peripheral membrane protein {ECO:0000250|UniProtKB:O88778}. Note=In retina, is localized in the outer plexiform layer at ribbon synapses formed by rods and cones but was absent from basal synaptic contacts formed by cones. In the retinal inner plexiform layer localized to conventional inhibitory GABAergic synapses, made by amacrine cells, but absent from the bipolar cell ribbon synapses. {ECO:0000250|UniProtKB:O88778}

Tissue Location Exclusively expressed in brain.

Images



Tissue/cell: mouse brain tissue; 4%
Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-Bassoon Polyclonal Antibody, Unconjugated(AP54190) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining