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VAMP2 Antibody

Rabbit mAb
Catalog # AP91199

Product Information

Application	WB, IF, FC, ICC, IP
Primary Accession	P63027
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	RATVAMPB; RATVAMPIR; SYB2; Synaptobrevin 2; Vamp2l; Vesicle-associated membrane protein 2 (synaptobrevin 2);
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	12663

Additional Information

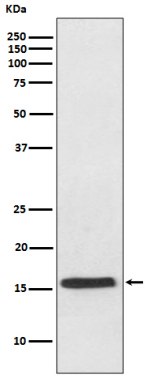
Dilution	WB 1:1000~1:5000 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human VAMP2
Description	The SNARE complex is involved in vesicular transport and membrane fusion, a process regulated by calcium. In neurons, VAMP2 is predominantly inserted in presynaptic vesicle membranes. Assembly of VAMP2 with the plasma membrane SNAREs syntaxin 1 and SNAP25 is a key event necessary for membrane fusion and neurotransmitter release.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Protein Information

Name	VAMP2 (HGNC:12643)
Function	SNAREs (soluble N-ethylmaleimide-sensitive factor-attachment protein receptors) are essential proteins for intracellular membrane fusion. SNAREs localized on opposing membranes assemble to form a trans-SNARE complex, an extended, parallel four-helix bundle whose assembly releases energy that drives membrane fusion. The core SNARE complex typically consists of four alpha-helical domains, three from target membrane SNAREs (t-SNAREs) and one from a vesicle SNARE (v- SNARE) (PubMed:10036234, PubMed:30929742). VAMP2 is a v-SNARE assembling into a SNARE complex with the t-SNAREs SNAP25 and STX1A to mediate the fusion of synaptic vesicles with the presynaptic plasma membrane in neurotransmitter release (PubMed:30929742). Also functions in compensatory endocytosis for synaptic vesicle recycling (By similarity). In adipocytes, it is involved in the insulin-dependent exocytosis of GLUT4 storage vesicles (By similarity).

	Independently of its SNARE activity, it could modulate the gating characteristics of the delayed rectifier voltage-dependent potassium channel KCNB1 (By similarity).
Cellular Location	Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane; Single-pass type IV membrane protein. Cell membrane {ECO:0000250|UniProtKB:P63045}. Note=Colocalizes with PRKCZ and WDFY2 in intracellular vesicles (PubMed:17313651)
Tissue Location	Nervous system and skeletal muscle.

Images



Western blot analysis of VAMP2 expression in mouse brain lysate.

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