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[KO]VAMP8/EDB Rabbit mAb

Catalog # AP76954

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	Q9BV40
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Chromatography
Calculated MW	11438

Additional Information

Gene ID	8673
Other Names	VAMP8
Dilution	WB~~1:1000 IHC-P~~N/A FC~~1:10~50 IP~~N/A
Format	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	VAMP8 {ECO:0000303|PubMed:12130530, ECO:0000312|HGNC:HGNC:12647}
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:23217709, PubMed:25686604, PubMed:28265073). VAMP8 is a v-SNARE that forms a SNARE complex with the t-SNARE STX11 and SNAP23. This SNARE complex plays a critical role in the regulated exocytosis of cytotoxic granules by natural killer (NK) cells and cytotoxic T- lymphocytes (PubMed:28265073). VAMP8 plays a role in autophagy where it controls organelle-organelle membrane fusion through a VAMP8, SNAP29 and STX17 SNARE complex that mediates the fusion of autophagosome and lysosome membranes (PubMed:23217709,

	PubMed:25686604). VAMP8 is required for dense-granule secretion in platelets (PubMed:12130530). Also plays a role in regulated enzyme secretion in pancreatic acinar cells (By similarity). Involved in the abscission of the midbody during cell division, which leads to completely separate daughter cells (By similarity). Involved in the homotypic fusion of early and late endosomes (By similarity). Also participates in the activation of type I interferon antiviral response through a TRIM6-dependent mechanism (PubMed:31694946).
Cellular Location	Lysosome membrane; Single-pass type IV membrane protein. Early endosome membrane; Single-pass type IV membrane protein. Late endosome membrane; Single-pass type IV membrane protein. Cell membrane {ECO:0000250|UniProtKB:O70404}; Single-pass type IV membrane protein. Zymogen granule membrane {ECO:0000250|UniProtKB:O70404}; Single-pass type IV membrane protein. Note=Perinuclear vesicular structures of the early and late endosomes, coated pits, and trans-Golgi (By similarity) Sub-tight junctional domain in retinal pigment epithelium cells Midbody region during cytokinesis. Lumenal oriented, apical membranes of nephric tubular cell (By similarity). Cycles through the apical but not through the basolateral plasma membrane (By similarity). Apical region of acinar cells; in zymogen granule membranes (By similarity) {ECO:0000250|UniProtKB:Q9WUF4}
Tissue Location	Platelets..

Background

VAMP8, also named as endobrevin, is a member of the vesicle-associated membrane protein (VAMP)/synaptobrevin family and the SNARE (soluble NSF-attachment protein receptor) superfamily. Characterized by a common sequence called the SNARE motif, SNARE proteins are involved in membrane fusion and vesicular transport (PMID: 11252968). VAMP8 is involved in autophagy through the direct control of autophagosome membrane fusion with the lysososome membrane. It is required for dense-granule secretion in platelets and plays a role in regulated enzyme secretion in pancreatic acinar cells. VAMP8 is also involved in the abscission of the midbody during cell division, which leads to completely separate daughter cells.