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VAMP8 Antibody (N-term)

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8440a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q9BV40
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,k
Clone Names	1414CT354.12.23.93
Calculated MW	11438

Additional Information

Gene ID	8673
Other Names	Vesicle-associated membrane protein 8, VAMP-8, Endobrevin, EDB, VAMP8
Target/Specificity	This VAMP8 antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 2~24 amino acids from the N-terminal region of human VAMP8.
Dilution	WB~~1:1000-1:2000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	VAMP8 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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 lysososome 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..

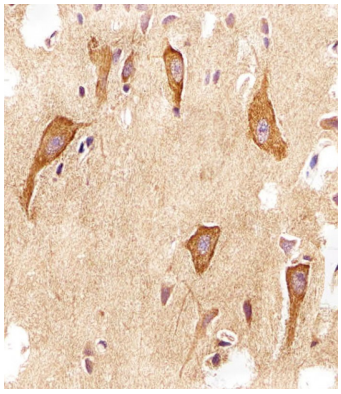
Background

SNAREs, Soluble N-ethylmaleimide-sensitive factor- attachment protein receptors, are essential proteins for fusion of cellular membranes. SNAREs localized on opposing membranes assemble to form a trans-SNARE complex, an extended, parallel four alpha-helical bundle that drives membrane fusion. VAMP8 is a SNARE involved in autophagy through the direct control of autophagosome membrane fusion with the lysososome membrane. Also required for dense-granule secretion in platelets. Plays also a role in regulated enzyme secretion in pancreatic acinar cells. Involved in the abscission of the midbody during cell division, which leads to completely separate daughter cells. Involved in the homotypic fusion of early and late endosomes.

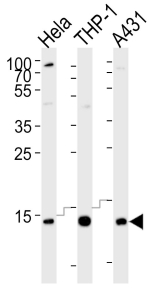
References

Wong S.H.,et al.Mol. Biol. Cell 9:1549-1563(1998).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Hillier L.W.,et al.Nature 434:724-731(2005).
Polgar J.,et al.Blood 100:1081-1083(2002).

Images



Immunohistochemical analysis of paraffin-embedded H. brain section using VAMP8 Antibody (N-term)(Cat#AM8440a). AM8440a was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Western blot analysis of lysates from Hela, THP-1, A431 cell line (from left to right), using VAMP8 Antibody (N-term)(Cat. #AM8440a). AM8440a was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20µg per lane.

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