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Anti-VAMP8/Endobrevin Rabbit Monoclonal Antibody

Catalog # ABO13734

Product Information

Application	WB, IHC, IF, ICC, IP, FC
Primary Accession	Q9BV40
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-VAMP8/Endobrevin Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	8673
Other Names	Vesicle-associated membrane protein 8, VAMP-8, Endobrevin, EDB, VAMP8 {ECO:0000303|PubMed:12130530}
Calculated MW	11438
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50 FC 1:50
Subcellular Localization	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 ; Single-pass type IV membrane protein. 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)..
Tissue Specificity	Platelets..
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

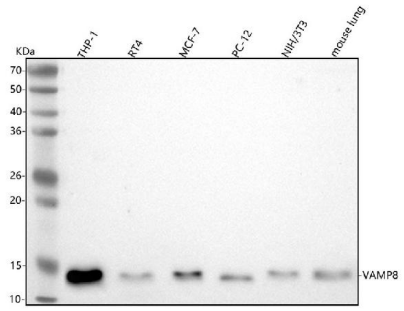
Clone Names	Clone: AOBO-22
Immunogen	A synthesized peptide derived from human VAMP8
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

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 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..

Images

Figure 1. Western blot analysis of VAMP8 using anti-VAMP8 antibody (M02338).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.



The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human THP-1 whole cell lysates,
Lane 2: human RT4 whole cell lysates,
Lane 3: human MCF-7 whole cell lysates,
Lane 4: rat PC-12 whole cell lysates,
Lane 5: mouse NIH/3T3 whole cell lysates,
Lane 6: mouse lung tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-VAMP8 antigen affinity purified monoclonal antibody (Catalog # M02338) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for VAMP8 at approximately 11 kDa. The expected band size for VAMP8 is at 11 kDa.

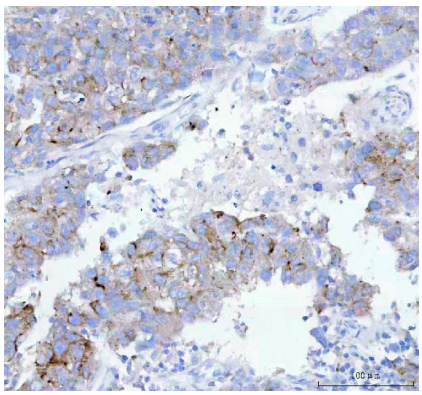


Figure 2. IHC analysis of VAMP8 using anti-VAMP8 antibody (M02338).
VAMP8 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-VAMP8 Antibody (M02338) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

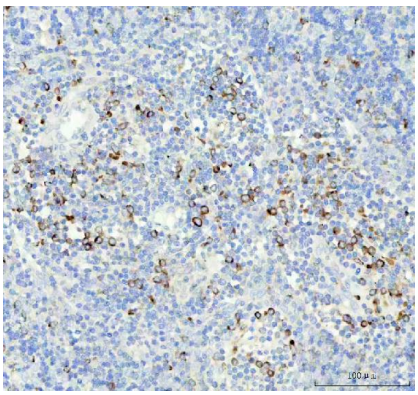
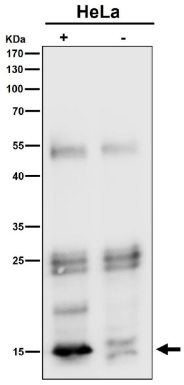


Figure 3. IHC analysis of VAMP8 using anti-VAMP8 antibody (M02338).
VAMP8 was detected in a paraffin-embedded section of human spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:100 rabbit anti-VAMP8 Antibody (M02338) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Immunoprecipitate (IP) analysis using the Antibody at 1:50 dilution. (wb at 1:3K dilution).



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