Product Datasheet

VAMP-7 Antibody - BSA Free
NBP2-32232

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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Publications: 1

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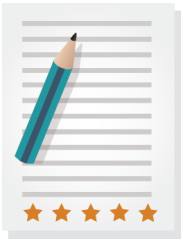
Updated 2/23/2025 v.20.1



NBP2-32232

VAMP-7 Antibody - BSA Free

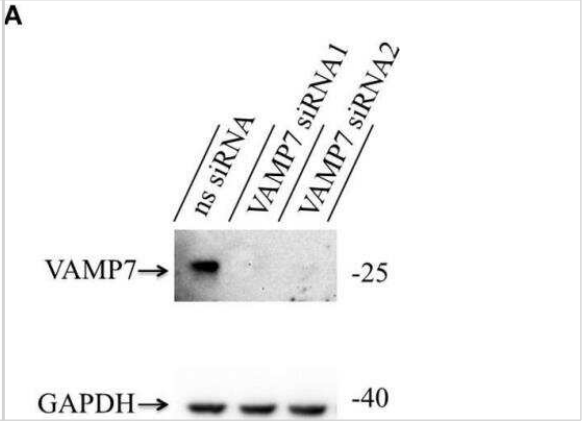
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

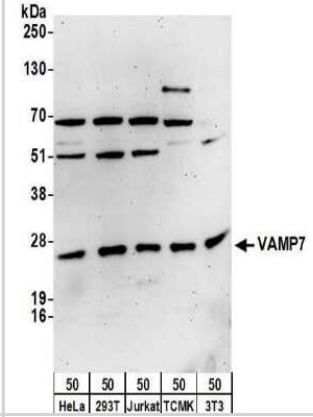
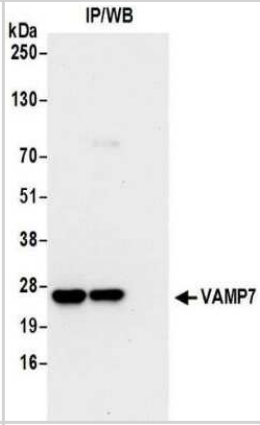
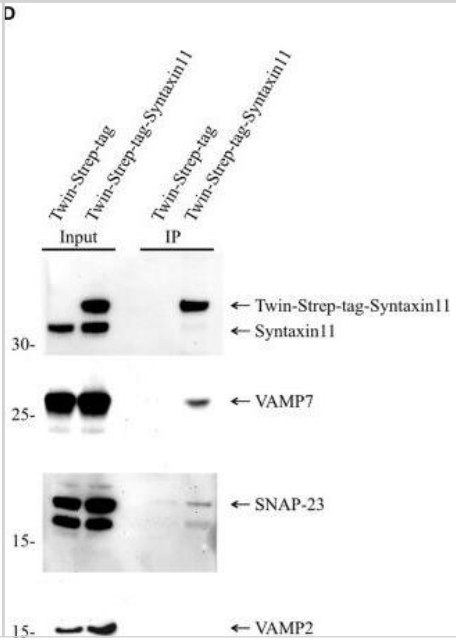
Product Description	
Host	Rabbit
Gene ID	6845
Gene Symbol	VAMP7
Species	Human, Mouse
Immunogen	The immunogen this antibody was made to, maps to a region between residue 105 to 155 of human Vesicle-Associated Membrane Protein 7 using the numbering given in entry NP_005629.1 (GeneID 6845).

Product Application Details	
Applications	Western Blot, Immunoprecipitation, Knockdown Validated
Recommended Dilutions	Western Blot 1:2000 - 1:10000, Immunoprecipitation 2 - 10 ug/mg lysate, Knockdown Validated
Application Notes	Western blot of lysates performed using standard western blot reagents and 4-20% SDS-PAGE.

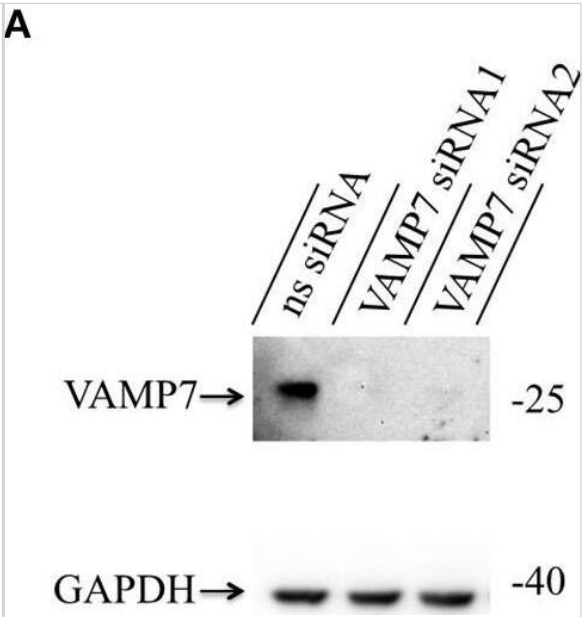
Images

Western Blot: VAMP-7 Antibody [NBP2-32232] - (A) Lysates from bead stimulated human CD8+ T cells transfected with either control or VAMP7 siRNAs (1 or 2, respectively) and blotted for VAMP7 (top) and GAPDH (bottom) as loading control. Image collected and cropped by CiteAb from the following publication (https://www.frontiersin.org/article/10.3389/fimmu.2019.01855/full) licensed under a CC-BY license.

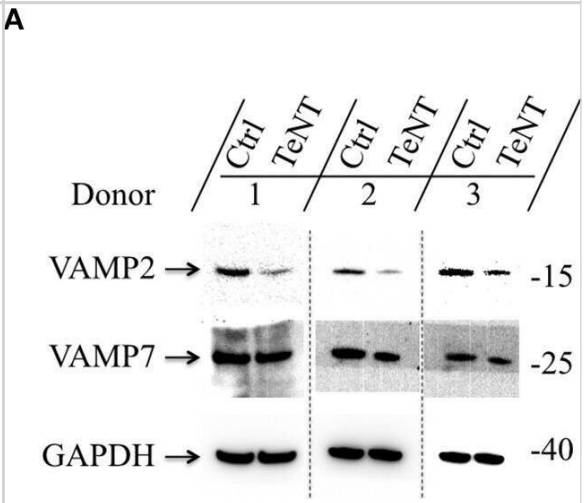


Western Blot: VAMP-7 Antibody [NBP2-32232] - Samples: Whole cell lysate (50 ug) from HeLa, 293T, Jurkat, mouse TCMK-1, and mouse NIH3T3 cells. Antibodies: Affinity purified rabbit anti-VAMP7 antibody NBP2-32232 used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 3 minutes.	
Immunoprecipitation: VAMP-7 Antibody [NBP2-32232] - Samples: Whole cell lysate (0.5 or 1.0 mg per IP reaction; 20% of IP loaded) from 293T cells. Antibodies: Affinity purified rabbit anti-VAMP7 antibody NBP2-32232 used for IP at 6 ug per reaction. VAMP7 was also immunoprecipitated by rabbit anti-VAMP7 antibody BL16273. For blotting immunoprecipitated VAMP7, NBP2-32232 was used at 1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.	
Western Blot: VAMP-7 Antibody [NBP2-32232] - VAMP7 forms a SNARE complex with SNAP-23 & Syntaxin11. (A) Model illustrating the formation of SNARE complex between VAMP7 (v-SNARE), SNAP-23, & Syntaxin11 (t- SNARE) during cytotoxic granule fusion in human CD8+ T cells. (B) Different Twin-Strep-tag fusion constructs used for pulldown assay. Twin-Strep-tag was fused at the C terminus of VAMP7 & at the N terminus of Syntaxin11 with a (GGS)x3 linker. (C) Western blot of bead stimulated human CD8+ T cells transfected with Twin-Strep-tag-tagged VAMP7, immuno-precipitated with anti-FLAG antibody & detected with antibodies against FLAG, SNAP-23, & Syntaxin11. (D) Western blot of bead stimulated human CD8+ T cells transfected with Twin-Strep-tag-tagged Syntaxin11, immuno-precipitated with anti-Syntaxin antibody & detected with antibodies against Strep-tag, SNAP-23, VAMP7, & VAMP2. As control, cells were transfected with Twin-Strep-tag construct. Ten percentage of the lysates were loaded as input. (E,F) Densitometric quantification of the Western blots shown in (C,D), respectively. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31447853), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Western Blot: VAMP-7 Antibody [NBP2-32232] - Knockdown of VAMP7 strongly reduces fusion of cytotoxic granules at the IS. (A) Lysates from bead stimulated human CD8+ T cells transfected with either control or VAMP7 siRNAs (1 or 2, respectively) & blotted for VAMP7 (top) & GAPDH (bottom) as loading control. (B) Quantification of VAMP7 protein expression (in % normalized to control siRNA-treated CTLs) performed by densitometry. Bars indicate SEMs. [VAMP7-siRNA1, N = 3; ***p < 0.001 & VAMP7-siRNA2, N = 3; ***p < 0.001 (t-test)]. (C) Human CD8+ T cells co-transfected with granzyme B-mCherry along with either ns-siRNA or VAMP7-siRNA1 or VAMP7-siRNA2 & imaged 12 h after transfection. Selected live-cell TIRF microscopy images of granzyme B-mCherry in a transfected CTL in contact with an anti-CD3 coated coverslip. Fusion events are indicated with open circles (three frames shown per granule fused). (D) Mean percentage of cytotoxic granule fusion in cells transfected with either ns-siRNA (n = 66 & n = 59, respectively) or VAMP7-siRNA1 [n = 91; **p < 0.01 (t-test)] or VAMP7-siRNA2 [n = 72; ***p < 0.001 (t-test)]. (E) Mean average number of granules fused over time in the TIRF plane per cell p = 0.206 (t-test) for VAMP7-siRNA1 & **p < 0.01 (t-test) for VAMP7-siRNA2. Bars indicate mean ± SEM. Scale bar, 5 µm. (F) Calcein-based killing assay for CTLs transfected with either ns-siRNA, VAMP7-siRNA1, or VAMP7-siRNA2. Experiments were carried out in duplicate [N = 4; ***p < 0.001 (t-test)]. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31447853), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: VAMP-7 Antibody [NBP2-32232] - Fusion of cytotoxic granules with the plasma membrane is insensitive to Tetanus toxin. (A) Bead-stimulated human CD8+ T cells transfected with GFP or TeNT-GFP as indicated. VAMP2 & VAMP7 protein levels were determined by Western blot analysis 12–16 h after transfection. (B) Expression of VAMP2 & VAMP7 protein levels relative to GAPDH in CTLs transfected with GFP or TeNT-GFP as indicated. Graphs represent means [N = 3, ***p < 0.001 (Student's t-test)]. (C) Bead-stimulated human CTLs co-transfected with either GFP or TeNT-GFP along with granzyme B-mCherry & imaged 12 h after transfection. Representative live-cell TIRFM images of CTLs in contact with an anti-CD3 coated coverslip. Fusion events indicated with open arrowheads. (D) Mean percentage of cytotoxic granule fusion in cells transfected with either GFP (n = 50) or TeNT-GFP (n = 40), p = 0.704 (Student's t-test). (E) Mean average number of granules fused per cell over time in the TIRF plane in cells transfected with either GFP (n = 20) or TeNT-GFP (n = 15), p = 0.939 (Student's t-test). Bars show mean ± SEM. Scale bar, 5 µm. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/31447853), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Chitirala P, Ravichandran K, Galgano D et al. Cytotoxic Granule Exocytosis From Human Cytotoxic T Lymphocytes Is Mediated by VAMP7 Front Immunol 2019-08-07 [PMID: 31447853] (WB, Human)

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
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NBP2-22939	Recombinant Human VAMP-7 His Protein

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