Product Datasheet

VPS45 Antibody
NB100-2431

Unit Size: 0.1 mg

Store at -20C. Avoid freeze-thaw cycles.

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Publications: 2

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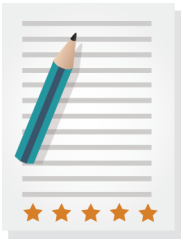
Updated 9/9/2025 v.20.1



NB100-2431

VPS45 Antibody

Product Information	
Unit Size	0.1 mg
Concentration	0.5 mg/ml
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris saline (20 mM Tris pH 7.3, 150 mM NaCl), 0.5% BSA

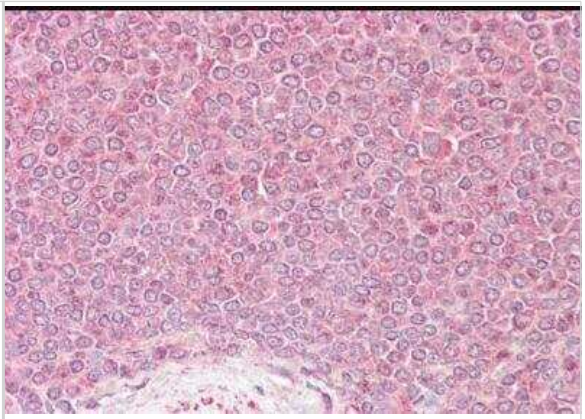
Product Description	
Description	Novus Biologicals Goat VPS45 Antibody (NB100-2431) is a polyclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-VPS45 Antibody: Cited in 2 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Goat
Gene ID	11311
Gene Symbol	VPS45
Species	Human
Immunogen	Peptide with sequence C-FQKKKPKEQQKLES corresponding to internal region according to NP_009190.2.

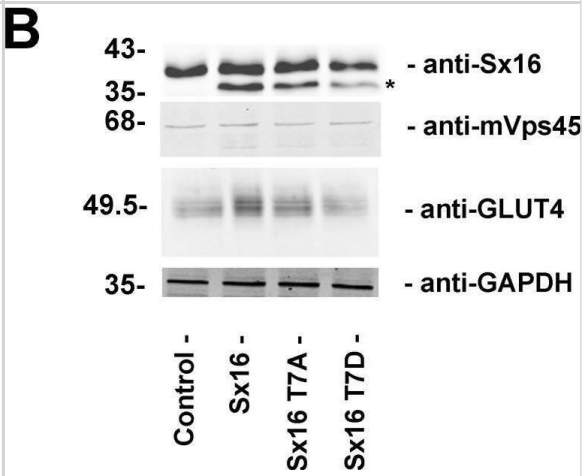
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunohistochemistry, Peptide ELISA
Recommended Dilutions	Western Blot 0.03 - 0.1 ug/ml, Immunohistochemistry, Immunohistochemistry-Paraffin 2.5 ug/ml, Peptide ELISA Detection limit 1:32000
Application Notes	WB: Approx. 55 kDa band observed in human placenta lysates (calculated MW of 65.1 kDa band according to NP_009190.2). IHC: Paraffin embedded Human Spleen.

Images

Western Blot: VPS45 Antibody [NB100-2431] - (0.03ug/ml) staining of human placenta lysate (35ug protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

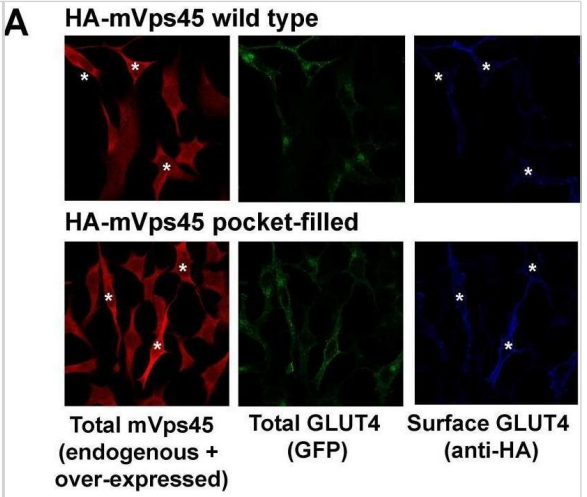
Immunohistochemistry-Paraffin: VPS45 Antibody [NB100-2431] - Staining of Human Spleen. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.taining of paraffin embedded Human Spleen. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.





Sx16-T7D reduces insulin-stimulated glucose transport.3T3-L1 adipocytes were infected with lentivirus delivering either wild-type Sx16, or Sx16-T7A or Sx16-T7D as outlined in Methods. (A) DeGlc uptake was assayed after incubation with or without 1 uM insulin for 30 min. Shown are the means of three independent experiments in which basal and insulin-stimulated deGlc uptake rates were measured in quadruplicate at each condition and are presented as a % of the insulin-stimulated rate in control (non-infected) cells. Over-expression of Sx16-T7D consistently impaired insulin-stimulated deGlc uptake; p = 0.02 compared to control cells (ANOVA). No other differences were observed between groups. (B) Shown are lysates from a typical dataset immunoblotted with anti-Sx16, anti-GLUT4, anti-mVps45 and anti-GAPDH. Note that over-expressed Sx16 and mutants thereof consistently migrate faster than the endogenous protein (indicated by * on the figure), the approximate positions of molecular weight markers are indicated (in kDa). We saw no significant differences in levels of expression of the different Sx16 mutants across all experiments of this type. (C) 3T3-L1 adipocytes expressing either Sx16-WT, T7A or T7D (as indicated) were treated with or without 1 uM insulin for 30 min and lysates separated on SDS-PAGE and immunoblotted using antibodies that recognise phosphorylated Akt or total Akt, as shown. Data from a typical experiment is shown. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37520260), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

mVps45 binding to Sx16 controls GLUT4 trafficking.HeLa cells expressing HA-GLUT4-GFP were transfected with plasmids encoding either HA-mVps45 (wild-type) or HA-mVps45-V107R (a mutant which prevents the interaction of the Sx16 N-terminus with mVps45 –see text). 48 h after transfection, cells were incubated in serum-free media for 2 h, fixed and cell surface GLUT4 immuno-stained using anti-HA (pseudo-coloured blue) prior to permeabilization. Subsequently, cells were permeabilised and stained using anti-mVps45 which detects both endogenous and over-expressed mVps45 (pseudo-coloured red; note that the use of HA-tagged mVps45 constructs and HA-tagged GLUT4 precluded this as a means to distinguish cells over-expressing mVps45 species). Signal from GFP is pseudo-coloured green. (A) Data from a typical experiment; white asterisk represent cells expressing higher than average anti-mVps45 immunoreactivity and which are therefore assumed to be over-expressing the indicated species. Data from a typical experiment is shown. (B) Levels of HA-GLUT4-GFP were not significantly altered upon over-expression of either wild-type or mVps45-V107R, which were expressed at similar levels (both are recognised by anti-HA); the approximate positions of molecular weight markers are shown (in kDa). (C) Quantification of the HA/GFP ratio from fields of cells such as those shown in (A). Fields of cells transfected with mVps45-V107R exhibited increased HA/GFP ratios compared to cells transfected with wild-type mVps45 (□p < 0.001 ANOVA). Wild-type transfected cells were indistinguishable from non-transfected controls (ns; p = 0.33 ANOVA). Each point on the graph is from a single field of cells; data from three independent biological experiments is presented. Image collected and cropped by CiteAb from the following open publication (https://pubmed.ncbi.nlm.nih.gov/37520260), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Bremner SK, Berends R, Kaupisch A et al. Phosphorylation of the N-terminus of Syntaxin-16 controls interaction with mVps45 and GLUT4 trafficking in adipocytes PeerJ 2023-07-24 [PMID: 37520260] (WB, ICC/IF, Mouse)

Nielsen E, Christoforidis S, Uttenweiler-Joseph S et al. Rabenosyn-5, a novel Rab5 effector, is complexed with hVPS45 and recruited to endosomes through a FYVE finger domain. J Cell Biol 2000-10-30 [PMID: 11062261]

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

Products Related to NB100-2431

NB820-59248	Human Placenta Whole Tissue Lysate (Adult Whole Normal)
NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF017	Rabbit anti-Goat IgG Secondary Antibody [HRP (Horseradish Peroxidase)]
HAF109	Donkey anti-Goat IgG Secondary Antibody [HRP (Horseradish Peroxidase)]
NB410-28088-1mg	Goat IgG Isotype Control

Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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