

VPS 45

Cat.No. 137 002; Polyclonal rabbit antibody, 200 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl antiserum, lyophilized. For reconstitution add 200 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 100 up to 1 : 5000 (AP staining) IP: not tested yet ICC: not tested yet IHC: not tested yet IHC-P/FFPE: not tested yet
Immunogen	Recombinant protein corresponding to AA 1 to 570 from human VPS45 (UniProt Id: Q9NRW7)
Reactivity	Reacts with: human (Q9NRW7), rat (O08700), mouse (P97390). Other species not tested yet.
Specificity	Specific for VPS 45.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

The vesicular transport protein **VPS 45** has first been discovered in yeast, and homologues were later found in mammals. This ubiquitously expressed protein belongs to the STxBP/Unc-18/Sec1 family. It is probably involved in vesicle-mediated protein trafficking from the Golgi stack through the trans-Golgi network. The highest expression levels are observed in brain and testis.

Selected References SYSY Antibodies

Sorting of GLUT4 into its insulin-sensitive store requires the Sec1/Munc18 protein mVps45.

Roccisana J, Sadler JB, Bryant NJ, Gould GW

Molecular biology of the cell (2013) 24(15): 2389-97. **WB**

The Thr224Asn mutation in the VPS45 gene is associated with the congenital neutropenia and primary myelofibrosis of infancy.
Stepensky P, Saada A, Cowan M, Tabib A, Fischer U, Berkun Y, Saleh H, Simanovsky N, Kogot-Levin A, Weintraub M, Ganaem H, et al.

Blood (2013) 121(25): 5078-87. **WB; tested species: human**

Detergent-free isolation and characterization of cholesterol-rich membrane domains from trans-Golgi network vesicles.

Waugh MG, Chu KM, Clayton EL, Minogue S, Hsuan JJ

Journal of lipid research (2011) 52(3): 582-9. **WB**

Common and distinct roles for the binding partners Rabenosyn-5 and Vps45 in the regulation of endocytic trafficking in mammalian cells.

Rahajeng J, Caplan S, Naslavsky N

Experimental cell research (2010) 316(5): 859-74. **WB**

Molecular anatomy of a trafficking organelle.

Takamori S, Holt M, Stenius K, Lemke EA, Grønborg M, Riedel D, Urlaub H, Schenck S, Brügger B, Ringler P, Müller SA, et al.

Cell (2006) 127(4): 831-46. **WB**

Characterization of the role of the Rab GTPase-activating protein AS160 in insulin-regulated GLUT4 trafficking.

Larance M, Ramm G, Stöckli J, van Dam EM, Winata S, Wasinger V, Simpson F, Graham M, Junutula JR, Guilhaus M, James DE, et al.

The Journal of biological chemistry (2005) 280(45): 37803-13. **WB**

Selected General References

How Tlg2p/syntaxin 16 'snares' Vps45.

Dulubova I, Yamaguchi T, Gao Y, Min SW, Huryeva I, Südhof TC, Rizo J

The EMBO journal (2002) 21(14): 3620-31.

Molecular cloning of a mammalian homologue of the yeast vesicular transport protein vps45.

El-Husseini AE, Guthrie H, Snutch TP, Vincent SR

Biochimica et biophysica acta (1997) 1325(1): 8-12.

Mutations in the VPS45 gene, a SEC1 homologue, result in vacuolar protein sorting defects and accumulation of membrane vesicles.

Cowles CR, Emr SD, Horazdovsky BF

Journal of cell science (1994) 107 (Pt 12): 3449-59.