

VPS29 (D2H7G) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	21	Rabbit IgG	#Q9UBQ0	51699

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

VPS29 (D2H7G) Rabbit mAb recognizes endogenous levels of total VPS29 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala121 of human VPS29 protein.

Background

Retromer is a heteropentameric protein complex that consists of two protein compounds, a sortinexin dimer and a trimeric VPS26-VPS29-VPS35 protein subcomplex. The retromer complex associates with endosomes at their cytosolic side to mediate retrograde transport of transmembrane proteins from endosomes to the trans-Golgi network (1-3). Vacuolar protein sorting-associated protein 29 (VPS29) is considered a cryptic metallophosphoesterase, as it contains a conserved metallophosphoesterase-fold that includes a phenylalanine in place of an essential histidine residue within the active site (4). While VPS29 is capable of binding metal ions, it does so with low affinity and exhibits no enzymatic activity. Instead, VPS29 serves as a scaffold protein that interacts with the carboxy-terminal region of VPS35 and is essential for association of the retromer with other endosomal transport proteins (5).

Background References

1. Seaman, M.N. (2005) *Trends Cell Biol* 15, 68-75.
2. Bonifacino, J.S. and Rojas, R. (2006) *Nat Rev Mol Cell Biol* 7, 568-79.
3. Verges, M. (2007) *Front Biosci* 12, 3825-51.
4. Hierro, A. et al. (2007) *Nature* 449, 1063-7.
5. Swarbrick, J.D. et al. (2011) *PLoS One* 6, e20420.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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