Revision 1

Store at -20C

#6975

Rab8A (D22D8) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H M R Mk	Endogenous	23	Rabbit IgG	#P61006	4218

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:200
Immunofluorescence (Immunocytochemistry)	1:200

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

Rab8A (D22D8) XP® Rabbit mAb recognizes endogenous levels of total Rab8A protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys175 of human Rab8A protein.

Background

The Rab8 GTPase is a member of the Ras superfamily that functions in protein transport and membrane restructuring (1). Studies show that Rab8 is localized to the trans Golgi network (TGN), basolateral membrane, and vesicular structures where it helps regulate target protein transport between TGN and the basolateral membrane (1-3). Overexpression studies and mutation analysis of Rab8 and its associated Rab8GEF indicate additional roles in actin and microtubule remodeling during polarized membrane transport and membrane protrusion formation (4-6). Rab8 associates with myosin Vb and is required for translocation of GLUT4 following insulin stimulation in muscle (7,8). Control of target protein vesicle transport by Rab8 also regulates MT1-MMP activity during extracellular matrix formation and JRAB/MICAL-L2 at tight junction formation (9,10).

Background References

1. Chen, Y.T. et al. (1993) *Proc Natl Acad Sci USA* 90, 6508-12.
2. Huber, L.A. et al. (1993) *J Cell Biol* 123, 35-45.
3. Henry, L. and Sheff, D.R. (2008) *Mol Biol Cell* 19, 2059-68.
4. Peränen, J. et al. (1996) *J Cell Biol* 135, 153-67.
5. Hattula, K. et al. (2002) *Mol Biol Cell* 13, 3268-80.
6. Hattula, K. et al. (2006) *J Cell Sci* 119, 4866-77.
7. Ishikura, S. and Klip, A. (2008) *Am J Physiol Cell Physiol* 295, C1016-25.
8. Randhawa, V.K. et al. (2008) *J Biol Chem* 283, 27208-19.
9. Bravo-Cordero, J.J. et al. (2007) *EMBO J* 26, 1499-510.
10. Yamamura, R. et al. (2008) *Mol Biol Cell* 19, 971-83.

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 **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

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

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Limited Uses

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