Revision 1

Store at -20C

#13048

Rab25 (D4P6P) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H	Endogenous	23	Rabbit IgG	#P57735	57111

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
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

Rab25 (D4P6P) XP® Rabbit mAb recognizes endogenous levels of total Rab25 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Rab25 protein.

Background

Rab11a, Rab11b, and Rab25 are members of the Rab11 subfamily of small Ras-like GTPases. Unlike universally expressed Rab11, typical Rab25 expression appears to be limited to gastrointestinal mucosa, kidney, and lung (1). Rab25 can associate with apical recycling vesicles to help regulate apical vesicle trafficking (2,3). Research studies indicate that atypical Rab25 expression can be associated with various forms of cancer. Increased Rab25 expression is associated with aggressive growth in ovarian and breast cancer, where Rab25 may inhibit apoptosis and promote cancer cell proliferation and invasion through regulation of vesicle transport and cellular motility (4-7). Interaction between Rab25 and β1 integrin promotes vesicle-mediated transport of integrin to pseudopodial tip membranes, fostering the persistent invasion of tumor cells (8). Conversely, the reported loss of Rab25 expression in a number of breast cancer cases has an unclear effect on cancer pathogenesis (9).

Background References

1. Goldenring, J.R. et al. (1993) *J Biol Chem* 268, 18419-22.
2. Casanova, J.E. et al. (1999) *Mol Biol Cell* 10, 47-61.
3. Wang, X. et al. (2000) *J Biol Chem* 275, 29138-46.
4. Cheng, K.W. et al. (2004) *Nat Med* 10, 1251-6.
5. Cheng, K.W. et al. (2005) *Cancer Res* 65, 2516-9.
6. Chia, W.J. and Tang, B.L. (2009) *Biochim Biophys Acta* 1795, 110-6.
7. Tang, B.L. and Ng, E.L. (2009) *Cell Motil Cytoskeleton* 66, 365-70.
8. Caswell, P.T. et al. (2007) *Dev Cell* 13, 496-510.
9. Cheng, J.M. et al. (2010) *Int J Cancer* 126, 2799-812.

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

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Limited Uses

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