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#95746**Rab7 (E9O7E) Mouse mAb**

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

<b>Applications:</b> W, IP, IHC-P, IF-F, IF-IC	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 23	<b>Source/Isotype:</b> Mouse IgG1	<b>UniProt ID:</b> #P51149	<b>Entrez-Gene Id:</b> 7879
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Frozen)  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:50  
1:100 - 1:400  
1:50 - 1:200  
1:50 - 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**

Rab7 (E9O7E) Mouse mAb recognizes endogenous levels of total Rab7 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu188 of human Rab7 protein.

**Background**

Rab7 and Rab9 are members of the Ras superfamily of small Rab GTPases (1). Both proteins are located in late endosomes, but exert different functions. Rab7 associates with the RIPL effector protein to control membrane trafficking from early to late endosomes and to lysosomes (2,3). Rab7 also helps to regulate growth receptor endocytic trafficking and degradation (3,4), and maturation of phagosome and autophagic vacuoles (4-6). Rab9 interacts with its effector proteins p40 and TIP47 (7,8) to promote the MPR (mannose 6-phosphate receptor)-associated lysosomal enzyme transport between late endosomes and the trans Golgi network (9,10).

**Background References**

1. Zerial, M. and McBride, H. (2001) *Nat Rev Mol Cell Biol* 2, 107-17.
2. Feng, Y. et al. (1995) *J Cell Biol* 131, 1435-52.
3. Méresse, S. et al. (1995) *J Cell Sci* 108 (Pt 11), 3349-58.
4. Ceresa, B.P. and Bahr, S.J. (2006) *J Biol Chem* 281, 1099-106.
5. Jäger, S. et al. (2004) *J Cell Sci* 117, 4837-48.
6. Méresse, S. et al. (1999) *EMBO J* 18, 4394-403.
7. Díaz, E. et al. (1997) *J Cell Biol* 138, 283-90.
8. Barbero, P. et al. (2002) *J Cell Biol* 156, 511-8.
9. Lombardi, D. et al. (1993) *EMBO J* 12, 677-82.
10. Riederer, M.A. et al. (1994) *J Cell Biol* 125, 573-82.

**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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-F:** Immunofluorescence (Frozen) **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

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

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