

EEA1 Antibody

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Applications: W, IP, IF-IC	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 170	Source/Isotype: Rabbit	UniProt ID: #Q15075	Entrez-Gene Id: 8411
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:25
1:100

Storage

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

Specificity/Sensitivity

EEA1 Antibody detects endogenous levels of total EEA1 protein. Nucleolar background has been observed in some cell lines by immunofluorescence.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly14 of human EEA1 protein. Antibodies are purified by peptide affinity chromatography.

Background

EEA1 is an early endosomal marker and a Rab5 effector protein essential for early endosomal membrane fusion and trafficking (1-2). The carboxy terminus of EEA1 contains a FYVE domain which binds to phosphatidylinositol-3-phosphate (PtdIns(3)P), targeting EEA1 to early endosomes (3). The stable association of EEA1 with the endosomal membrane is regulated by PI3 kinase, Rab5 and calcium/calmodulin (4-6). Once on the membrane, EEA1 interacts with Rab5, NSF and syntaxin 13 to promote early endosomal membrane docking and fusion (7).

Background References

1. Mu, F.T. et al. (1995) *J. Biol. Chem.* 270, 13503-13511.
2. Christoforidis, S. et al. (1999) *Nature* 397, 621-625.
3. Gaullier, J.M. et al. (1998) *Nature* 394, 432-433.
4. Patki, V. et al. (1997) *Proc. Natl. Acad. Sci. USA* 94, 7326-7330.
5. Lawe, D.C. et al. (2003) *Mol. Biol. Cell* 14, 2935-2945.
6. Simonsen, A. et al. (1998) *Nature* 394, 494-498.
7. McBride, H.M. et al. (1999) *Cell* 98, 377-386.

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

Cross-Reactivity Key

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

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