

DFCP1 (E9Q1S) Rabbit mAb

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Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 82	Source/Isotype: Rabbit IgG	UniProt ID: #Q9HBF4	Entrez-Gene Id: 53349
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

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

DFCP1 (E9W1S) Rabbit mAb recognizes endogenous levels of total DFCP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro336 of human DFCP1 protein.

Background

Double FYVE-containing protein 1 (DFCP1; gene name ZFYVE1), which was identified from a human bone marrow library, contains two carboxyl terminal FYVE domains that function as binding sites for phosphatidylinositol 3-phosphate (PI3P) (1). PI3P generated predominantly by the class III PI3-kinase VPS34 plays a key role in membrane trafficking as well as autophagy (2,3). DFCP1 is primarily localized to the Golgi and endoplasmic reticulum (ER) (4,5). However, during autophagy DFCP1 re-localizes to subdomains of the ER, the omegasome, which become the sites for autophagosome formation (6,7).

Background References

1. Derubeis, A.R. et al. (2000) *Gene* 255, 195-203.
2. Corvera, S. (2001) *Traffic* 2, 859-66.
3. Yan, Y. and Backer, J.M. (2007) *Biochem Soc Trans* 35, 239-41.
4. Ridley, S.H. et al. (2001) *J Cell Sci* 114, 3991-4000.
5. Cheung, P.C. et al. (2001) *Biochem J* 355, 113-21.
6. Itakura, E. and Mizushima, N. (2010) *Autophagy* 6, 764-76.
7. McAlpine, F. et al. (2013) *Autophagy* 9, 361-73.

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

Cross-Reactivity Key

H: Human

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