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## 4E-BP1 (53H11) Rabbit mAb (PE Conjugate)



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<b>Applications:</b> FC-FP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q13541	<b>Entrez-Gene Id:</b> 1978
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<b>Product Usage Information</b>	<b>Application</b> Flow Cytometry (Fixed/Permeabilized)	<b>Dilution</b> 1:50
<b>Storage</b>	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
<b>Specificity / Sensitivity</b>	4E-BP1 (53H11) Rabbit mAb (PE Conjugate) detects endogenous levels of total 4E-BP1 protein.	
<b>Source / Purification</b>	4E-BP1 (53H11) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to residues surrounding Ser112 of human 4E-BP1.	
<b>Product Description</b>	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated 4E-BP1 (53H11) Rabbit mAb #9644.	
<b>Background</b>	Translation repressor protein 4E-BP1 (also known as PHAS-1) inhibits cap-dependent translation by binding to the translation initiation factor eIF4E. Hyperphosphorylation of 4E-BP1 disrupts this interaction and results in activation of cap-dependent translation (1). Both the PI3 kinase/Akt pathway and FRAP/mTOR kinase regulate 4E-BP1 activity (2,3). Multiple 4E-BP1 residues are phosphorylated <i>in vivo</i> (4). While phosphorylation by FRAP/mTOR at Thr37 and Thr46 does not prevent the binding of 4E-BP1 to eIF4E, it is thought to prime 4E-BP1 for subsequent phosphorylation at Ser65 and Thr70 (5).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Pause, A. et al. (1994) <i>Nature</i> 371, 762-7.</li> <li>2. Brunn, G.J. et al. (1997) <i>Science</i> 277, 99-101.</li> <li>3. Gingras, A.C. et al. (1998) <i>Genes Dev</i> 12, 502-13.</li> <li>4. Fadden, P. et al. (1997) <i>J Biol Chem</i> 272, 10240-7.</li> <li>5. Gingras, A.C. et al. (1999) <i>Genes Dev</i> 13, 1422-37.</li> </ol>	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Applications Key</b>	<b>FC-FP:</b> Flow Cytometry (Fixed/Permeabilized)
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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