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

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

Applications: FC-FP	Reactivity: H M R Mk	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #Q13541	Entrez-Gene Id: 1978
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Product Usage Information	Application Flow Cytometry (Fixed/Permeabilized)	Dilution 1:50
Storage	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.	
Specificity/Sensitivity	4E-BP1 (53H11) Rabbit mAb (PE Conjugate) detects endogenous levels of total 4E-BP1 protein.	
Source / Purification	4E-BP1 (53H11) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to residues surrounding Ser112 of human 4E-BP1.	
Description	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.	
Background	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).	
Background References	<ol style="list-style-type: none"> 1. Pause, A. et al. (1994) <i>Nature</i> 371, 762-7. 2. Brunn, G.J. et al. (1997) <i>Science</i> 277, 99-101. 3. Gingras, A.C. et al. (1998) <i>Genes Dev</i> 12, 502-13. 4. Fadden, P. et al. (1997) <i>J Biol Chem</i> 272, 10240-7. 5. Gingras, A.C. et al. (1999) <i>Genes Dev</i> 13, 1422-37. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey
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