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## S6 Ribosomal Protein (54D2) Mouse mAb (PE Conjugate)

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

<b>Applications:</b> FC-FP	<b>Reactivity:</b> H M R Mk Dm	<b>Sensitivity:</b> Endogenous	<b>Source/Isotype:</b> Mouse IgG1	<b>UniProt ID:</b> #P62753	<b>Entrez-Gene Id:</b> 6194
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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>	S6 Ribosomal Protein (54D2) Mouse mAb (PE Conjugate) detects endogenous levels of total S6 ribosomal protein independent of phosphorylation.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a recombinant fusion protein corresponding to full-length human S6 ribosomal protein.	
<b>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 S6 Ribosomal Protein (54D2) Mouse mAb #2317.	
<b>Background</b>	One way that growth factors and mitogens effectively promote sustained cell growth and proliferation is by upregulating mRNA translation (1,2). Growth factors and mitogens induce the activation of p70 S6 kinase and the subsequent phosphorylation of S6 ribosomal protein. Phosphorylation of S6 ribosomal protein correlates with an increase in translation of mRNA transcripts that contain an oligopyrimidine tract in their 5' untranslated regions (2). These particular mRNA transcripts (5'TOP) encode proteins involved in cell cycle progression, as well as ribosomal proteins and elongation factors necessary for translation (2,3). Important S6 ribosomal protein phosphorylation sites include several residues (Ser235, Ser236, Ser240, and Ser244) located within a small, carboxy-terminal region of S6 protein (4,5).	
<b>Background References</b>	<ol style="list-style-type: none"> <li>Dufner, A. and Thomas, G. (1999) <i>Exp Cell Res</i> 253, 100-9.</li> <li>Peterson, R.T. and Schreiber, S.L. (1998) <i>Curr Biol</i> 8, R248-50.</li> <li>Jefferies, H.B. et al. (1997) <i>EMBO J</i> 16, 3693-704.</li> <li>Ferrari, S. et al. (1991) <i>J Biol Chem</i> 266, 22770-5.</li> <li>Flotow, H. and Thomas, G. (1992) <i>J Biol Chem</i> 267, 3074-8.</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>Mk:</b> Monkey <b>Dm:</b> D. melanogaster
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