

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



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Applications: W	<b>Reactivity:</b> H M R Mk Dm	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 32	Source/Isotype: Mouse IgG1	<b>UniProt ID:</b> #P62753	Entrez-Gene Id: 6194		
Product Usage Information		<b>Application</b> Western Blotting		Dilution 1:1000				
Storage		Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at –20°C. Do not aliguot the antibodies.						
Specificity/Sensitivity		S6 Ribosomal Protein (54D2) Mouse mAb (HRP Conjugate) detects endogenous levels of total S6 ribosomal protein independent of phosphorylation.						
Source / Purif	ication	Monoclonal antibody is produced by immunizing animals with a recombinant fusion protein corresponding to full-length human S6 ribosomal protein.						
Description		This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated S6 Ribosomal Protein (54D2) Mouse mAb #2317.						
Background		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).						
Background F	References	1. Dufner, A. and Thomas, G. (1999) <i>Exp Cell Res</i> 253, 100-9. 2. Peterson, R.T. and Schreiber, S.L. (1998) <i>Curr Biol</i> 8, R248-50. 3. Jefferies, H.B. et al. (1997) <i>EMBO J</i> 16, 3693-704. 4. Ferrari, S. et al. (1991) <i>J Biol Chem</i> 266, 22770-5. 5. Flotow, H. and Thomas, G. (1992) <i>J Biol Chem</i> 267, 3074-8.						
Species React	ivity	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 I	Key	W: Western Blotting						
Cross-Reactiv	ity Key	H: Human M: Mouse R: Rat Mk: Monkey Dm: D. melanogaster						
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