

#3958 Store at -20°C

Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb (Biotinylated)


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	45	Rabbit IgG	#P36507, #Q02750	5605, 5604

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:100
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 aliquot the antibodies.	
Specificity / Sensitivity	Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb (Biotinylated) detects endogenous levels of MEK1/2 only when phosphorylated at Ser217/221.	
Species predicted to react based on 100% sequence homology:	Chicken	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser217/221 of human MEK1/2.	
Product Description	This Cell Signaling Technology (CST) antibody is conjugated to biotin under optimal conditions. The unconjugated antibody Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb #9154 reacts with human, mouse, rat, monkey and <i>D. melanogaster</i> phospho-MEK1/2 (Ser217/221). CST expects that Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb (Biotinylated) will also recognize phospho-MEK1/2 (Ser217/221) in these species.	
MW (kDa)	45	
Background	MEK1 and MEK2, also called MAPK or Erk kinases, are dual-specificity protein kinases that function in a mitogen activated protein kinase cascade controlling cell growth and differentiation (1-3). Activation of MEK1 and MEK2 occurs through phosphorylation of two serine residues at positions 217 and 221, located in the activation loop of subdomain VIII, by Raf-like molecules. MEK1/2 is activated by a wide variety of growth factors and cytokines and also by membrane depolarization and calcium influx (1-4). Constitutively active forms of MEK1/2 are sufficient for the transformation of NIH/3T3 cells or the differentiation of PC-12 cells (4). MEK activates p44 and p42 MAP kinase by phosphorylating both threonine and tyrosine residues at sites located within the activation loop of kinase subdomain VIII.	
Background References	1. Crews, C.M. et al. (1992) <i>Science</i> 258, 478-480. 2. Alessi, D.R. et al. (1994) <i>EMBO J.</i> 13, 1610-19. 3. Rosen, L.B. et al. (1994) <i>Neuron</i> 12, 1207-21. 4. Cowley, S. et al. (1994) <i>Cell</i> 77, 841-52.	

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	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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