



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at +4C
#16211

Phospho-MEK1/2 (Ser221) (166F8) 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: #P36507, #Q02750	Entrez-Gene Id: 5605, 5604
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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	Phospho-MEK1/2 (Ser 221) (166F8) Rabbit mAb (PE Conjugate) detects endogenous levels of MEK1/2 only when phosphorylated at Serine 221.	
Species predicted to react based on 100% sequence homology	Dog	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser221 of human MEK1/2.	
Description	This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in mouse cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated Phospho-MEK1/2 (Ser 221) (166F8) Rabbit mAb #2338.	
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	<ol style="list-style-type: none"> 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).
Applications Key	FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey
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