## Phospho-MEK1/2 (Ser221) (166F8) Rabbit mAb (PE Conjugate)



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Applications:Reactivity:Sensitivity:Source/Isotype:UniProt ID:Entrez-Gene Id:FC-FPH M R MkEndogenousRabbit IgG#P36507, #Q027505605, 5604

 Product Usage Information
 Application
 Dilution

 Flow Cytometry (Fixed/Permeabilized)
 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.

**Product 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** 1. Crews, C.M. et al. (1992) *Science* 258, 478-480.

2. Alessi, D.R. et al. (1994) *EMBO J.* 13, 1610-19.

3. Rosen, L.B. et al. (1994) Neuron 12, 1207-21.

4. Cowley, S. et al. (1994) Cell 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 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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