

## 4660

## Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb (Alexa Fluor® 488 Conjugate)



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

| Applications:  | Reactivity: | Sensitivity:  | Source/Isotype: | UniProt ID:      | Entrez-Gene Id:         |
|--|-------------|---|-----------------|------------------|-------------------------|
| FC-FP  | H M R Mk Dm | Endogenous  | Rabbit IgG      | #P36507, #Q02750 | 5605, 5604              |
| Product Usage<br>Information                                     |             | Application Flow Cytometry (Fixed/Permeabilized)  |                 |                  | <b>Dilution</b><br>1:50 |
| Storage  |             | Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at $4^{\circ}$ C. Do not aliquot the antibody. Protect from light. Do not freeze.  |                 |                  |                         |
| Specificity/Sensitivity  |             | Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb (Alexa Fluor® 488 Conjugate) detects endogenous levels of MEK1/2 only when activated by phosphorylation at Ser217/221.  |                 |                  |                         |
| Species predicted to react<br>based on 100% sequence<br>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.  |                 |                  |                         |
| Description  |             | This Cell Signaling Technology antibody is conjugated to Alexa Fluor <sup>®</sup> 488 fluorescent dye and tested in-house for direct flow cytometry in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated antibody (Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb #9154).   |                 |                  |                         |
| 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.<br>2. Alessi, D.R. et al. (1994) <i>EMBO J.</i> 13, 1610-19.<br>3. Rosen, L.B. et al. (1994) <i>Neuron</i> 12, 1207-21.   |                 |                  |                         |

**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)

4. Cowley, S. et al. (1994) Cell 77, 841-52.

Cross-Reactivity Key

H: Human M: Mouse R: Rat Mk: Monkey Dm: D. melanogaster

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