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#8211

## PhosphoPlus® MEK1/2 (Ser217/Ser221) Antibody Duet

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

**UniProt ID:** #P36507, #Q02750  
**Entrez-Gene Id:** 5605, 5604

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
MEK1/2 (D1A5) Rabbit mAb	8727	100 µl	45 kDa	Rabbit IgG
Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb	9154	100 µl	45 kDa	Rabbit IgG

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### 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.

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