Store at -20°C

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

#8211

Cell Signaling TECHNOLOGY®

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Entrez-Gene ID #5604
UniProt ID #Q02750

Rev. 05/14/18

For Research Use Only. Not For Use In Diagnostic Procedures.

Products Included	Product #	Quantity	Mol. Wt.	Isotype/Source
MEK1/2 (D1A5) Rabbit mAb	8727	100 µl	45 kDa	Rabbit IgG
P-MEK1/2 (S217/221) (41G9) Rabbit mAb	9154	100 µl	45 kDa	Rabbit IgG

See www.cellsignal.com for individual component applications, species cross-reactivity, dilutions, and additional application protocols.

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.

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.

Specificity/Sensitivity: Phospho-MEK1/2 (Ser217/221) (41G9) Rabbit mAb detects endogenous levels of MEK1/2 only when activated by phosphorylation at Ser217/221. MEK1/2 (D1A5) Rabbit mAb recognizes endogenous levels of total MEK1 and MEK2 proteins. This antibody is predicted to cross-react with MEK1/MEK2 orthologs in a variety of species.

Source/Purification: Monoclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser217/221 of human MEK1/2 or a synthetic peptide corresponding to residues surrounding Ala220 of human MEK1 protein.

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.*

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

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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Applications: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide **Species Cross-Reactivity:** **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.