

## Anti-Phospho-MEK1/2 (Ser217, 210) Antibody (8K441)

### Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human; Species predicted to react based on 100% sequence homology: Mouse, Rat, Cynomolgus, Bovin
Conjugation:	Unconjugated
Clone:	8K441
Purification:	Protein A

### Applications

Verified Activity:	<ol style="list-style-type: none"> <li>Western blot analysis of extracts from serum-starved Raji, untreated (line A); treated with TPA (200 nM, 30 min) (line B); treated with TPA and <math>\lambda</math>-phosphatase (line C) using Phospho-MEK1/2 (Ser217, 221) Antibody, Rabbit MAb at 1:1000 dilution.</li> <li>Western blot analysis of extracts from serum-starved Raji, untreated (-) or treated with TPA (200 nM, 30 min) (+), using Phospho-MEK1/2 (Ser217, 221) Antibody, Rabbit Mab at 1:1000 dilution (upper) or Anti-MEK1 Antibody, Rabbit Polyclonal (middle) at 1:500 dilution or Beta-Tubulin Loading Control Antibody, Mouse Mab at 1:20000 dilution.</li> <li>Western blot analysis of extracts from serum-starved Raji, untreated (line A); treated with TPA (200 nM, 30 min), without peptide (line B) or antigen-specific phosphopeptide (line C) or antigen-specific peptide (line D) using Phospho-MEK1/2 (Ser217, 221) Antibody, Rabbit MAb at 1:1000 dilution. (Validation Experiment)</li> <li>Western blot analysis of extracts from serum-starved Raji, treated with TPA (200 nM, 30 min), using Phospho-MEK1/2 (Ser217, 221) Antibody, Rabbit Mab and other brands' antibodies (Company C) at dilution of 1:2000, 1:10000. (Validation Experiment)</li> </ol>
Application:	WB
Recommended	WB: 1:2000-1:20000

### Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

### Antigen Details

Immunogen:	A synthetic phosphopeptide corresponding to residues around Ser218 and Ser222 of the Human MEK1 (Uniprot: Q02750-1) and Ser222 and Ser226 of the Human MEK2 (Uniprot: P36507). Human MEK1 residue Ser218
Antigen Species:	Human
Synonyms:	ERK-1;p-MEK1/2 (S217, 210);ERK1;HS44KDAP;ERK-2;p-MEK1/2 (Ser217, 210);Erk2;p44-MAPK;P44MAPK;MEK1/2 (p-Ser217, 210);p44-ERK1;Phospho-MEK1/2 (S217, 210);PRKM3;MEK1/2 (p-S217, 210);P44ERK1;ERT2;HUMKER1A
Biology Area:	Cancer Drug Targets

### Research Background

MEK1, also known as MAP2K1 and MKK1, is a member of the dual-specificity protein kinase family, which acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. MEK1 is widely expressed, with extremely low levels in the brain. It lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon a wide variety of extra- and intracellular signals. As an essential component of the MAP kinase signal transduction pathway, MEK1 is involved in many cellular processes such as proliferation, differentiation, transcription regulation, and development. Binding extracellular ligands such as growth factors, cytokines, and hormones to their cell-surface receptors activates RAS and this initiates RAF1 activation. RAF1 then further activates the dual-specificity protein kinases MAP2K1 and MEK2. MEK1 has been shown to export PPARG from the nucleus. The MAPK cascade is also involved in the regulation of endosomal dynamics, including lysosome processing and endosome cycling through the perinuclear recycling compartment (PNRC), as well as in the fragmentation of the Golgi apparatus during mitosis. MKK1 catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Defects in MEK1 can cause Cardiofaciocutaneous Syndrome. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

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