

**Phospho-Ser218,222 MEK 1/2 Antibody**  
Affinity purified rabbit polyclonal antibody  
Catalog # AN1018

## Specification

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### Phospho-Ser218,222 MEK 1/2 Antibody - Product Information

Application	WB
Primary Accession	<a href="#">Q02750</a>
Reactivity	Mouse
Predicted	Bovine, Chicken, Human, Monkey, Rat, Xenopus, Zebrafish
Host	Rabbit
Clonality	polyclonal
Calculated MW	45 KDa

### Phospho-Ser218,222 MEK 1/2 Antibody - Additional Information

Gene ID	5604
Gene Name	MAP2K1/2
<b>Other Names</b>	
Dual specificity mitogen-activated protein kinase kinase 1, MAP kinase kinase 1, MAPKK 1, MKK1, ERK activator kinase 1, MAPK/ERK kinase 1, MEK 1, MAP2K1, MEK1, PRKMK1	

#### Target/Specificity

Synthetic phospho-peptide corresponding to amino acid residues surrounding Ser218/222 conjugated to KLH.

#### Dilution

WB~~ 1:1000

#### Format

Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

#### Antibody Specificity

Specific for the ~45k MEK 1/2 protein phosphorylated at Ser218/222 in Western blots. Immunolabeling is blocked by the phosphopeptide used as the antigen but not by the corresponding dephosphopeptide.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Phospho-Ser218,222 MEK 1/2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

#### Shipping

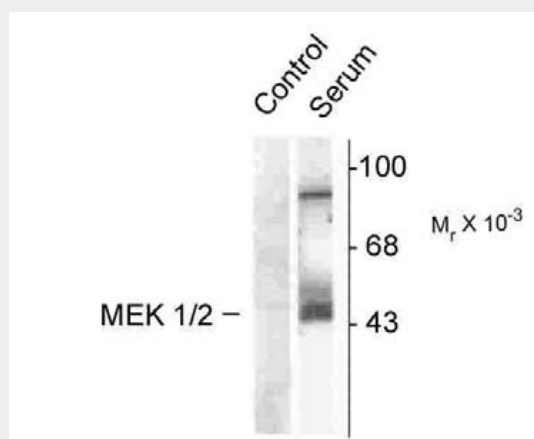
Blue Ice

## Phospho-Ser218,222 MEK 1/2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Phospho-Ser218,222 MEK 1/2 Antibody - Images



Western Blot of NIH 3T3 cell lysates showing specific immunolabeling of the ~45k MEK 1/2 protein phosphorylated at Ser218 and Ser222. The cells were either serum starved (Control) or incubated in the presence of serum (Serum). Immunolabeling of an additional band at ~95k was also observed.

## Phospho-Ser218,222 MEK 1/2 Antibody - Background

MEK 1 (MAP Kinase Kinase, also known as MKK) is an integral component of the MAP kinase cascade that regulates cell growth and differentiation (Ahn, 1993; Chong et al., 2003). This pathway also plays a key role in synaptic plasticity in the brain (Adams and Sweatt, 2002). Activated MEK 1 acts as a dual specificity kinase phosphorylating both a threonine and a tyrosine residue on MAP kinase (Kyriakis et al., 1991; Seger et al., 1991; Crews et al., 1992).

## Phospho-Ser218,222 MEK 1/2 Antibody - References

- Adams JP, Sweatt JD (2002) Molecular psychology: Roles for the ERK MAP kinase cascade in memory. *Annu Rev Pharmacol Toxicol* 42:135-163.
- Ahn NG (1993) The MAP kinase cascade. Discovery of a new signal transduction pathway. *Mol Cell Biochem* 127-128:201-209.
- Chong H, Vikis HG, Guan KL (2003) Mechanisms of regulating the Raf kinase family. *Cellular Signalling* 15:463-469.
- Crews CM, Alessandrini A, Erikson RL (1992) The primary structure of MEK, a protein kinase that phosphorylates the ERK gene product. *Science* 258:478-480.
- Kyriakis JM, Brautigan DL, Ingebritsen TS, Avruch J (1991) pp54 Microtubule-associated protein-2 kinase requires both tyrosine and serine/threonine phosphorylation for activity. *J Biol Chem*

266:10043-10046.

Seger R, Ahn NG, Boulton TG, Yancopoulos GD, Panayotatos N, Radziejewska E, Ericsson L, Bratlien RL, Cobb MH, Krebs EG (1991) Microtubule-associated protein 2 kinases, ERK1 and ERK2, undergo autophosphorylation on both tyrosine and threonine residues: Implications for their mechanism of activation. Proc Natl Acad Sci USA 88:6142-6146.