

# PRODUCT INFORMATION



## MEK1/2 (Phospho-Ser<sup>218,222</sup>) Polyclonal Antibody

Item No. 10009178

### Overview and Properties

<b>Contents:</b>	This vial contains Affinity-purified IgG
<b>Synonyms:</b>	MAP Kinase Kinase 1/2, MAPKK1/2, Mitogen-activated Protein Kinase Kinase 1/2
<b>Immunogen:</b>	Phosphopeptide corresponding to amino acid residues surrounding phospho-Ser <sup>218,222</sup> of human MEK1/2
<b>Cross Reactivity:</b>	(+) NIH 3T3 cells
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Host:</b>	Rabbit
<b>Applications:</b>	Western blot (WB); the recommended starting dilution for for WB is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Description

MAP kinase kinase 1 (MEK1) is an integral component of the MAP kinase cascade that regulates cell growth and differentiation.<sup>1,2</sup> This pathway also plays a key role in synaptic plasticity in the brain.<sup>3</sup> Activated MEK1 acts as a dual specificity kinase phosphorylating both a threonine and a tyrosine residue on MAP kinase.<sup>4-6</sup>

### References

1. Ahn, N.G. The MAP kinase cascade. Discovery of a new signal transduction pathway. *Mol. Cell Biochem.* **127-128**, 201-209 (1993).
2. Chong, H., Vikis, H.G., Guan, K.L. Mechanisms of regulating the Raf kinase family. *Cell. Signal.* **15(5)**, 463-469, (2003).
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4. Crews, C.M., Alessandrini, A. and Erikson, R.L. The primary structure of MEK a protein kinase that phosphorylates the ERK gene product (extracellular signal-regulated kinases). *Science* **258(5081)**, 478-480 (1992).
5. Kyriakis, J.M., Brautigan, D.L., Ingebritsen, T.S., *et al.* pp54 Microtubule-associated protein-2 kinase requires both tyrosine and serine/threonine phosphorylation for activity. *J. Biol. Chem.* **266(16)**, 10043-10046 (1991).
6. Seger, R., Ahn, N.G., Boulton, T.G., *et al.* 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. U.S.A.* **88(14)**, 6142-6146 (1991).

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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