

## Rabbit MEK1/2 Polyclonal Antibody | anti-MEK1/2 antibody

Phospho-MEK1/2 (Ser217) Antibody

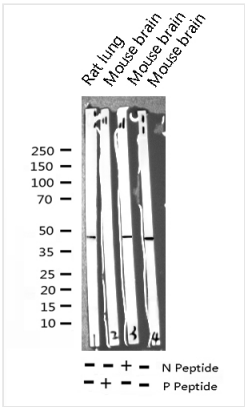
| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                              |
|-----------|--------|-------------------|-------------------------------------------|
| AAA321682 | Rabbit | Human, Mouse, Rat | ELISA, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

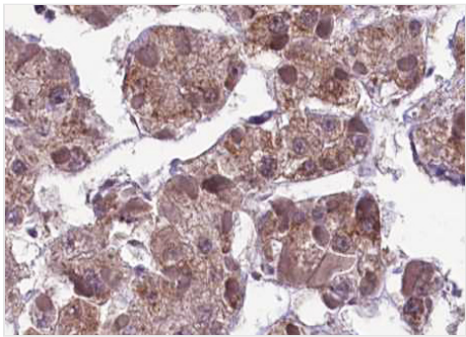
MEK1/2; Polyclonal Antibody; Phospho-MEK1/2 (Ser217) Antibody; Dual specificity mitogen activated protein kinase kinase 1; Dual specificity mitogen-activated protein kinase kinase 1; ERK activator kinase 1; MAP kinase kinase 1; MAP kinase/Erk kinase 1; MAP2K1; MAPK/ERK kinase 1; MAPKK 1; MAPKK1; MEK 1; Mek1; MEKK1; Mitogen activated protein kinase kinase 1; MKK 1; MKK1; MP2K1\_HUMAN; PRKMK1; Protein kinase mitogen activated kinase 1 (MAP kinase kinase 1); Protein kinase mitogen activated; kinase 1; Cardiofaciocutaneous syndrome; CFC syndrome; CFC4; Dual specificity mitogen activated protein kinase kinase 2; Dual specificity mitogen-activated protein kinase kinase 2; ERK activator kinase 2; FLJ26075; MAP kinase kinase 2; map2k2; MAPK/ERK kinase 2; MAPKK 2; MAPKK2; MEK 2; MEK2; Microtubule associated protein kinase kinase 2; Mitogen activated protein kinase kinase 2; Mitogen activated protein kinase kinase 2 p45; MKK 2; MKK2; MP2K2\_HUMAN; OTTHUMP00000165826; OTTHUMP00000165827; PRKMK 2; PRKMK2; anti-MEK1/2 antibody

### PRODUCT SPECIFICATIONS

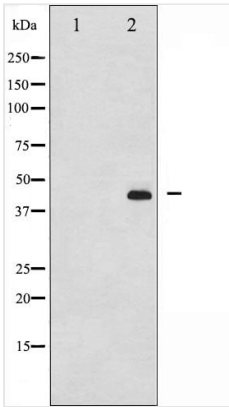
|                                                  |                                                                                                                                        |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Host                                             | Rabbit                                                                                                                                 |
| Reactivity                                       | Human, Mouse, Rat                                                                                                                      |
| Clonality                                        | Polyclonal                                                                                                                             |
| Isotype                                          | IgG                                                                                                                                    |
| Specificity                                      | Phospho-MEK1/2 (Ser217) antibody detects endogenous levels of MEK1/2 only when phosphorylated at Serine 217                            |
| Purity/Purification                              | From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns. |
| Form/Format                                      | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                          |
| Concentration                                    | 1mg/ml (varies by lot)                                                                                                                 |
| Sequence Length                                  | 393                                                                                                                                    |
| Applicable Applications for anti-MEK1/2 antibody | ELISA, IHC (Immunohistochemistry), WB (Western Blot)                                                                                   |
| Immunogen                                        | A synthesized peptide derived from human MEK1/2 around the phosphorylation site of Serine 217                                          |
| Subcellular Location                             | Nucleus; Cytoskeleton                                                                                                                  |
| Tissue Specificity                               | Widely expressed, with extremely low levels in brain.                                                                                  |
| Predicted Cross Reactivity                       | <b>Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus</b>                                                             |
| Similarity                                       | Pig (100%), Zebrafish (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)     |
| Conjugation                                      | Unconjugated                                                                                                                           |
| Epitope                                          | Phospho Ser217                                                                                                                         |
| Preparation and Storage                          | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                      |



**WB (Western Blot)**  
Western blot analysis of Phospho-MEK1/2 (Ser217) expression in various lysates



**IHC (Immunohistochemistry)**  
AAA321682 at 1/100 staining human liver tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



**WB (Western Blot)**  
Western blot analysis of MEK1/2 phosphorylation expression in PMA treated 293 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

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|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-MEK1/2 antibody | <p>Description: The protein encoded by this gene 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.</p> <p>Function: Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Binding of 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/MEK1 and MAP2K2/MEK2. Both MAP2K1/MEK1 and MAP2K2/MEK2 function specifically in the MAPK/ERK cascade, and catalyze the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in the extracellular signal-regulated kinases MAPK3/ERK1 and MAPK1/ERK2, leading to their activation and further transduction of the signal within the MAPK/ERK cascade. Depending on the cellular context, this pathway mediates diverse biological functions such as cell growth, adhesion, survival and differentiation, predominantly through the regulation of transcription, metabolism and cytoskeletal rearrangements. One target of the MAPK/ERK cascade is peroxisome proliferator-activated receptor gamma (PPARG), a nuclear receptor that promotes differentiation and apoptosis. MAP2K1/MEK1 has been shown to export PPARG from the nucleus. The MAPK/ERK 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.</p> <p>Subunit Structure: Found in a complex with at least BRAF, HRAS, MAP2K1, MAPK3/ERK1 and RGS14. Forms a heterodimer with MAP2K2/MEK2. Forms heterodimers with KSR2 which further dimerize to form tetramers.</p> <p>Interacts with ARBB2, LAMTOR3, MAPK1/ERK2, MORG1 and RAF1 (By similarity). Interacts with PPARG and with isoform 1 of VRK2 (PubMed:20679487, PubMed:17101779). Interacts with Yersinia yopJ (PubMed:16728640). Interacts with SGK1 (PubMed:19447520). Interacts with BIRC6/bruce (PubMed:18329369). Interacts with KSR1 (PubMed:10409742). Interacts with KAT7; the interaction promotes KAT7 phosphorylation (By similarity).</p> <p>Post-translational Modifications: Phosphorylation at Ser-218 and Ser-222 by MAP kinase kinase kinases (RAF or MEKK1) positively regulates kinase activity. Also phosphorylated at Thr-292 by MAPK1/ERK2 and at Ser-298 by PAK. MAPK1/ERK2 phosphorylation of Thr-292 occurs in response to cellular adhesion and leads to inhibition of Ser-298 phosphorylation by PAK. Acetylation by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway.</p> <p>Similarity: The proline-rich region localized between residues 270 and 307 is important for binding to RAF1 and activation of MAP2K1/MEK1. Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                            |
|----------------------------------|------------------------------------------------------------|
| NCBI GI #                        | 5579478                                                    |
| NCBI GeneID                      | 5604                                                       |
| NCBI Accession #                 | NP_002746.1                                                |
| NCBI GenBank Nucleotide #        | NM_002755.3                                                |
| UniProt Accession #              | Q02750; P36507                                             |
| Molecular Weight                 | Observed: 45 kDa<br>Predicted: 44 kDa                      |
| NCBI Official Full Name          | dual specificity mitogen-activated protein kinase kinase 1 |
| NCBI Official Synonym Full Names | mitogen-activated protein kinase kinase 1                  |
| NCBI Official Symbol             | MAP2K1                                                     |
| NCBI Official Synonym Symbols    | CFC3; MEK1; MKK1; MAPKK1; PRKMK1                           |
| NCBI Protein Information         | dual specificity mitogen-activated protein kinase kinase 1 |
| UniProt Protein Name             | Dual specificity mitogen-activated protein kinase kinase 1 |
| UniProt Gene Name                | MAP2K1                                                     |
| UniProt Synonym Gene Names       | MEK1; PRKMK1; MAP kinase kinase 1; MAPKK 1; MKK1; MEK 1    |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)

Online datasheet: <https://stage.aaabiotech.com/polyclonal/mek1-2-antibody-immunohistochemistry-western-blot-elisa/321682>