

## ARG57898 anti-MEK1 phospho (Thr286) antibody

Package: 50 µl  
Store at: -20°C

### Summary

|                     |   |
|---------------------|---|
| Product Description | Rabbit Polyclonal antibody recognizes MEK1 phospho (Thr286)   |
| Tested Reactivity   | Hu, Ms, Rat   |
| Tested Application  | WB  |
| Host                | Rabbit  |
| Clonality           | Polyclonal  |
| Isotype             | IgG   |
| Target Name         | MEK1  |
| Species             | Human   |
| Immunogen           | Phospho specific peptide corresponding to residues surrounding Thr286 of Human MEK1.  |
| Conjugation         | Un-conjugated   |
| Alternate Names     | MEK 1; PRKMK1; MAPKK 1; EC 2.7.12.2; MEK1; MAPKK1; MKK1; Dual specificity mitogen-activated protein kinase kinase 1; MAP kinase kinase 1; MAPK/ERK kinase 1; CFC3; ERK activator kinase 1 |

### Application Instructions

| Application table | Application  | Dilution       |
|-------------------|--|----------------|
|                   | WB   | 1:500 - 1:2000 |
| Application Note  | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |                |
| Positive Control  | PC-12  |                |
| Observed Size     | ~ 43 kDa   |                |

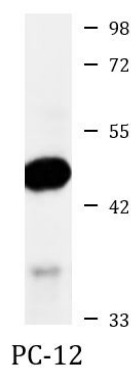
### Properties

|                     |   |
|---------------------|---|
| Form                | Liquid  |
| Purification        | Affinity purified.  |
| Buffer              | PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.  |
| Preservative        | 0.02% Sodium azide  |
| Stabilizer          | 50% Glycerol  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.  |

## Bioinformation

|                       |   |
|-----------------------|---|
| Gene Symbol           | MAP2K1  |
| Gene Full Name        | mitogen-activated protein kinase kinase 1   |
| Background            | 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. This protein kinase lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon wide variety of extra- and intracellular signals. As an essential component of MAP kinase signal transduction pathway, this kinase is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. [provided by RefSeq, Jul 2008]  |
| 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. [UniProt] |
| Calculated Mw         | 43 kDa  |
| PTM                   | 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.<br><br>Acetylation by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway. [UniProt]  |
| Cellular Localization | Cytoplasm, Membrane, Nucleus, Peripheral membrane protein, centrosome, cytoskeleton, microtubule organizing center, spindle pole body. [UniProt]  |

## Images



ARG57898 anti-MEK1 phospho (Thr286) antibody WB image

Western blot: 25 µg of PC-12 cells were treated by Nocodazole (1 µg/ml) for 16 hours. The blot was stained with ARG57898 anti-MEK1 phospho (Thr286) antibody at 1:1000 dilution.