

## ARG57897 anti-MEK1 phospho (Ser298) antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes MEK1 phospho (Ser298)
Tested Reactivity	Hu, Ms, Rat
Tested Application	IP, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MEK1
Species	Human
Immunogen	Phospho specific peptide corresponding to residues surrounding Ser298 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
	IP	1:50 - 1:100
	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	C6	
Observed Size	~ 43 kDa	

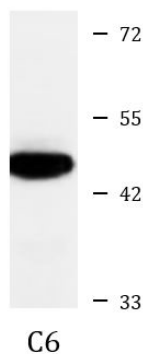
### Properties

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.

## Bioinformatics

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.  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



ARG57897 anti-MEK1 phospho (Ser298) antibody WB image

Western blot: 25 µg of C6 cell lysate stained with ARG57897 anti-MEK1 phospho (Ser298) antibody at 1:1000 dilution.

ARG57897 anti-MEK1 phospho (Ser298) antibody IP image

Immunoprecipitation: 200 µg extracts of 293 cells treated by PMA.  
The blots were immunoprecipitated and stained with ARG57897 anti-MEK1 phospho (Ser298) antibody at 1:1000 dilution.

