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PRODUCT DATASHEET

Anti-MEK1 (Thr292) Antibody

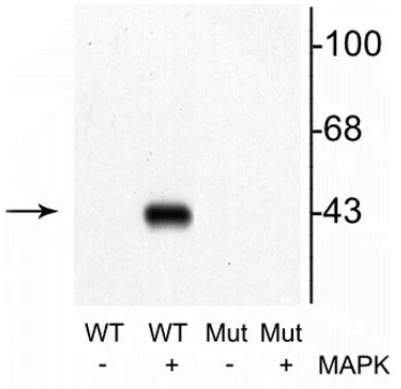
phosphosolutions ANTIBODIES THAT WORK | KO Validated | Pooled Serum

Product Details

Available Variants	100 µL (SKU:p180-292) 25 µL (SKU:p180-292t)
Conjugate	Unconjugated
Isotype	IgG
Gene Name	MAP2K1
Host Species	Rabbit
Format	Antigen Affinity Purified from Pooled Serum
Physical State	Liquid
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Production Notes	Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.
Applications	ELISA, WB
Dilution Ranges	WB: 1:1000
Species Reactivity	Human
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr292 of human MEK1, conjugated to keyhole limpet hemocyanin (KLH).
Specificity	Specific for endogenous levels of the ~45 kDa MEK 1 protein phosphorylated at Thr292.
Molecular Weight	45 kDa
Quality Control	Western blots performed on each lot.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.

Antibody Registry ID	AB_2492147
UniProt ID	Q02750 UniProt Summary: 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. Activates BRAF in a KSR1 or KSR2-dependent manner; by binding to KSR1 or KSR2 releases the inhibitory intramolecular interaction between KSR1 or KSR2 protein kinase and N-terminal domains which promotes KSR1 or KSR2-BRAF dimerization and BRAF activation (PubMed:29433126). 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. {ECO:0000269|PubMed:14737111, ECO:0000269|PubMed:17101779, ECO:0000269|PubMed:29433126}.
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
Expected Reactivity	Bovine, Canine, Non-Human Primate, Rat
Post Translational Modification Type	Phosphorylated
Post Translational Modification Residue	Thr292
NCBI Gene ID	5604

Product Images



Western blot of recombinant wild type MEK 1 (WT) and mutant MEK 1 (T292A) (Mut). Specific immunolabeling of the ~45 kDa MEK-1 protein phosphorylated at Thr292 is shown in the second lane where MAP kinase was coexpressed.