

# P-MEK1/2 (S217/221) Rabbit mAb [RY41]

Cat NO. :A52648

#### Information:

Applications	Reactivity:	UniProt ID:	MW(kDa)	Host	Isotype	Size
WB	H,M,R	Q02750,P36507	45 kDa	Rabbit	IgG	100ul,200ul

Applications detail:

Application

WB

1:1000-2000

The optimal dilutions should be determined by the end user

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C	onii	ua	ate	:		

UnConjugate

Form:

Liquid

sensitivity:

Endogenous

**Purification**:

Protein A purification

### Specificity:

Antibody is produced by immunizing animals with a synthetic peptide at the sequence of Human Phospho-MEK1/2 (Ser217/221)

## Storage buffer and conditions:

Antibody store in 10 mM PBS, 0.5mg/ml BSA, 50% glycerol (buffer) .

Shipped at 4°C. Store at-20°C or -80°C.

Products are valid for one natural year of receipt. Avoid repeated freeze / thaw cycles.

## Tissue specificity:

Widely expressed, with extremely low levels in brain..

## Subcellular location:

Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, microtubule organizing center, spindle pole body. Cytoplasm. Nucleus. Membrane, Peripheral membrane

## Function:

Introduction: WB: Western Blot IP: Immunoprecipitation IHC: Immunohistochemistry ChIP: Chromatin Immunoprecipitation ICC/IF: Immunocytochemistry/
Immunofluorescence F: Flow Cytometry

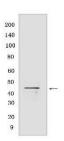
Cross Reactivity: H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus MI: mink C: chicken Dm D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Hr: horse



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..

#### Validation Data:

#### P-MEK1/2 (S217/221) Rabbit mAb [RY41] Images



Western blot (SDS PAGE) analysis of extracts from TPA-treated HeLa cells. Using P-MEK1/2 (S217/221) Rabbit mAb [RY41] at dilution of 1:1000 incubated at  $4^{\circ}$ C over

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