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**Product Name: MEK-3 (phospho Ser218) Rabbit Polyclonal Antibody****Catalog #: APRab05007**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phosphorylated
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:5000-1:10000
<b>Molecular Weight</b>	39kDa

**Antigen Information**

<b>Gene Name</b>	MAP2K3 MAP2K3; MEK3; MKK3; PRKMK3; SKK2; Dual specificity mitogen-activated protein kinase
<b>Alternative Names</b>	kinase 3; MAP kinase kinase 3; MAPKK 3; MAPK/ERK kinase 3; MEK 3; Stress-activated protein kinase kinase 2; SAPK kinase 2; SAPKK-2; SAPKK2
<b>Gene ID</b>	5606.0
<b>SwissProt ID</b>	P46734
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human MKK3 around the phosphorylation site of Ser189. AA range:173-222

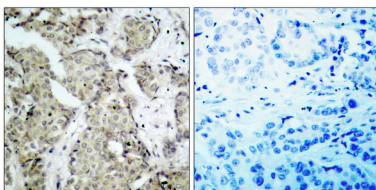
## Background

The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is activated by mitogenic and environmental stress, and participates in the MAP kinase-mediated signaling cascade. It phosphorylates and thus activates MAPK14/p38-MAPK. This kinase can be activated by insulin, and is necessary for the expression of glucose transporter. Expression of RAS oncogene is found to result in the accumulation of the active form of this kinase, which thus leads to the constitutive activation of MAPK14, and confers oncogenic transformation of primary cells. The inhibition of this kinase is involved in the pathogenesis of Yersinia pseudotuberculosis. Multiple alternatively spliced transcript variants that encode distinct isoforms have been reported for this gene. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Defects in MAP2K3 may be involved in colon cancer.,enzyme regulation:Activated by dual phosphorylation on Ser-218 and Thr-222.,function:Dual specificity kinase. Is activated by cytokines and environmental stress in vivo. Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinase p38.,PTM:Autophosphorylated.,PTM:Phosphorylation on Ser-218 and Thr-222 by MAP kinase kinase kinases regulates positively the kinase activity.,PTM:Yersinia yopJ may acetylate Ser/Thr residues, preventing phosphorylation and activation, thus blocking the MAPK signaling pathway.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Binds to DYRK1B/MIRK and increases its kinase activity. Part of a complex with MAP3K3, RAC1 and CCM2. Interacts with Yersinia yopJ.,tissue specificity:Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues.,

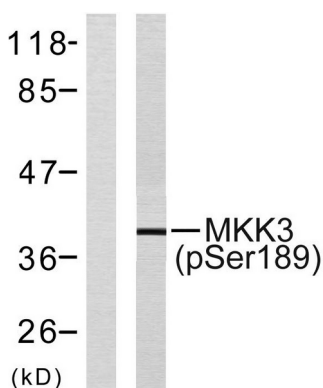
## Research Area

Regulates Angiogenesis; Stem cell pathway; Regulation of Actin Dynamics; Toll\_Like; Cell Growth; MAPK\_ERK\_Growth;MAPK\_G\_Protein; B Cell Receptor

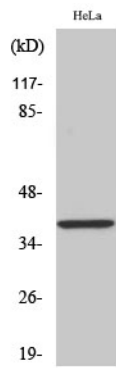
## Image Data



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using MKK3 (Phospho-Ser189) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from MDA-MB-435 cells, using MKK3 (Phospho-Ser189) Antibody. The lane on the left is blocked with the phospho peptide.



Western Blot analysis of various cells using Phospho-MEK-3 (S218) Polyclonal Antibody