

**Product Name: MEK-1/2 (phospho Ser218/222) Rabbit Polyclonal Antibody**  
**Catalog #: APRab05004**



## Summary

<b>Production Name</b>	MEK-1/2 (phospho Ser218/222) Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Phospho Antibody
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	MAP2K1/MAP2K2 MAP2K1; MEK1; PRKMK1; Dual specificity mitogen-activated protein kinase kinase 1;
<b>Alternative Names</b>	MAP kinase kinase 1; MAPKK 1; MKK1; ERK activator kinase 1; MAPK/ERK kinase 1; MEK 1; MAP2K2; MEK2; MKK2; PRKMK2; Dual specificity mitogen-activated protein k
<b>Gene ID</b>	5604/5605
<b>SwissProt ID</b>	Q02750/P36507.The antiserum was produced against synthesized peptide derived from human MEK1/2 around the phosphorylation site of Ser217. AA range:189-238

## Application

<b>Dilution Ratio</b>	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200
<b>Molecular Weight</b>	48kD

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## Background

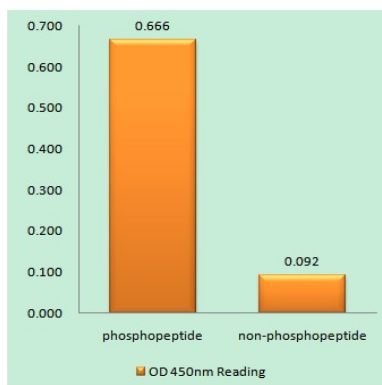
The protein encoded by this gene is a member of the dual specificity protein kinase family, which acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein 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],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Defects in MAP2K1 are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC syndrome is autosomal dominant.,enzyme regulation:Activated by phosphorylation.,function:Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Activates ERK1 and ERK2 MAP kinases.,PTM:Acetylation by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway.,PTM:Phosphorylation on Ser/Thr by MAP kinase kinase kinases (RAF or MEKK1) regulates positively the kinase activity.,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:Interacts with MORG1 (By similarity). Interacts with Yersinia yopJ.,

## Research Area

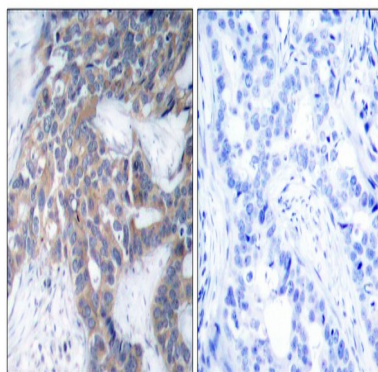
Regulates Angiogenesis; Regulation of Actin Dynamics; Stem cell pathway; T\_Cell\_Receptor; Cell Growth; Insulin Receptor; Toll\_Like; MAPK\_ERK\_Growth;MAPK\_G\_Protein; ErbB/HER; B\_Cell\_Antigen;PI3K/Akt

## Image Data

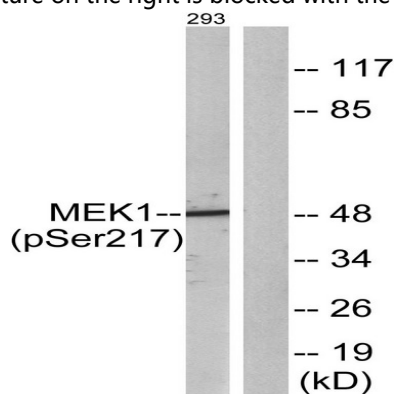
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Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using MEK1/2 (Phospho-Ser217) Antibody

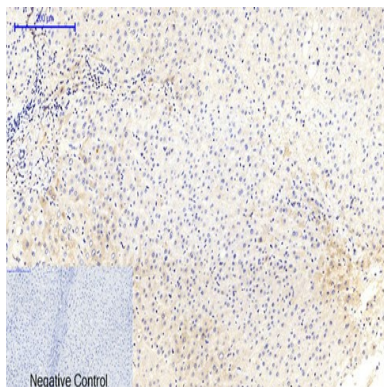


Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using MEK1/2 (Phospho-Ser217) Antibody. The picture on the right is blocked with the phospho peptide.

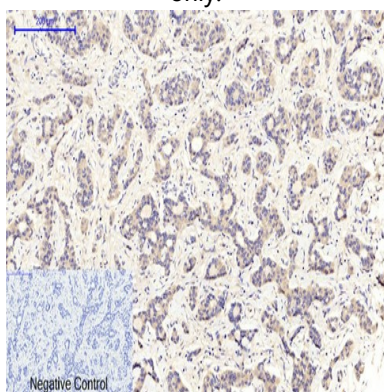


Western blot analysis of lysates from 293 cells treated with PMA 125ng/ml 30', using MEK1/2 (Phospho-Ser217) Antibody. The lane on the right is blocked with the phospho peptide.

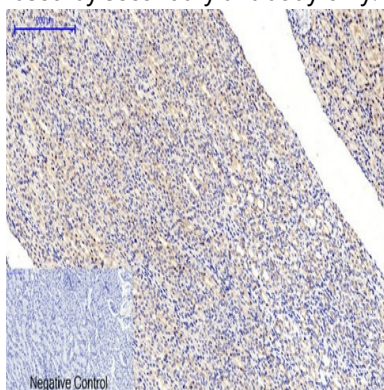
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Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1, MEK-1/2 (phospho Ser218/222) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1, MEK-1/2 (phospho Ser218/222) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.

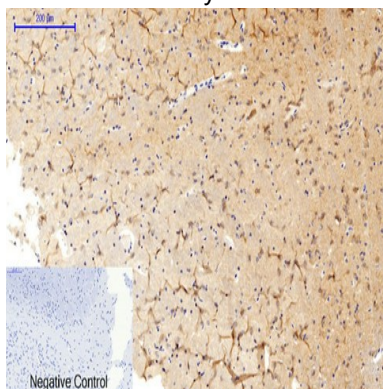


Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1, MEK-1/2 (phospho Ser218/222) Polyclonal Antibody was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min).

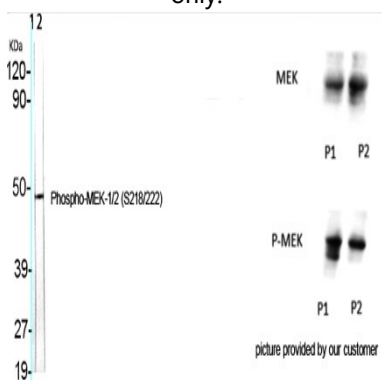
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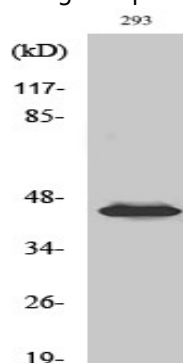
3,Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Rat-brain tissue. 1,MEK-1/2 (phospho Ser218/222) Polyclonal Antibody was diluted at 1:200 (4°C,overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C,20min) . 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody only.



Western Blot analysis of various cells using Phospho-MEK-1/2 (S218/222) Polyclonal Antibody



Western Blot analysis of 293 cells using Phospho-MEK-1/2 (S218/222) Polyclonal Antibody

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**Note**

For research use only.