

#### MEK2 (MAP2K2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7961a

## **Specification**

## MEK2 (MAP2K2) Antibody (N-term) - Product Information

Application WB, IF,E Primary Accession P36507

Other Accession
Reactivity
Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 44424
Antigen Region 1-30

## MEK2 (MAP2K2) Antibody (N-term) - Additional Information

#### **Gene ID 5605**

#### **Other Names**

Dual specificity mitogen-activated protein kinase kinase 2, MAP kinase kinase 2, MAPKK 2, ERK activator kinase 2, MAPK/ERK kinase 2, MEK 2, MAP2K2, MEK2, MKK2, PRKMK2

#### Target/Specificity

This MEK2 (MAP2K2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human MEK2 (MAP2K2).

### **Dilution**

WB~~1:1000 IF~~1:10~50

E~~Use at an assay dependent concentration.

## **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

MEK2 (MAP2K2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## MEK2 (MAP2K2) Antibody (N-term) - Protein Information

## Name MAP2K2





# Synonyms MEK2, MKK2, PRKMK2

**Function** Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Activates the ERK1 and ERK2 MAP kinases (By similarity). 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).

#### **Cellular Location**

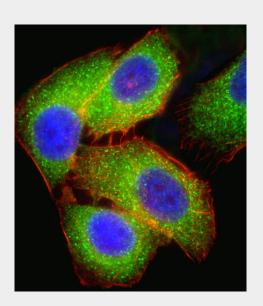
Cytoplasm. Membrane; Peripheral membrane protein. Note=Membrane localization is probably regulated by its interaction with KSR1.

## MEK2 (MAP2K2) Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

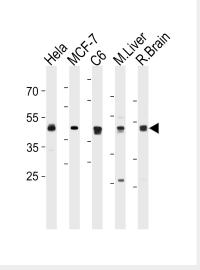
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

#### MEK2 (MAP2K2) Antibody (N-term) - Images

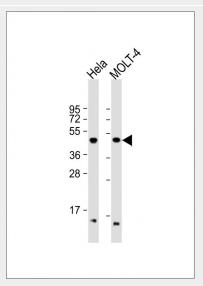


Fluorescent confocal image of U251 cell stained with MEK2 (MAP2K2) Antibody (N-term)(Cat#AP7961a).U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with MEK2 (MAP2K2) primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10  $\mu$ g/ml, 10 min).MEK2 (MAP2K2) immunoreactivity is localized to Cytoplasm significantly.





MEK2 (MAP2K2) Antibody (N-term) (Cat. #AP7961a) western blot analysis in Hela,MCF-7,rat C6 cell line and mouse Liver,rat Brain tissue lysates (35ug/lane). This demonstrates the MEK2 (MAP2K2) antibody detected the MEK2 (MAP2K2) protein (arrow).



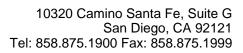
All lanes: Anti-MEK2 (MAP2K2) Antibody (N-term) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: MOLT-4 whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 44 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

#### MEK2 (MAP2K2) Antibody (N-term) - Background

MAP2K2 is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is known to play a critical role in mitogen growth factor signal transduction. It phosphorylates and thus activates MAPK1/ERK2 and MAPK2/ERK3. The activation of this kinase itself is dependent on the Ser/Thr phosphorylation by MAP kinase kinase kinases. The inhibition or degradation of this kinase is found to be involved in the pathogenesis of Yersinia and anthrax.

## MEK2 (MAP2K2) Antibody (N-term) - References

Burroughs, K.D., et al., Mol. Cancer Res. 1(4):312-322 (2003). Tran, H., et al., Mol. Cell. Biol. 23(20):7177-7188 (2003). Li, S.P., et al., Cancer Res. 63(13):3473-3477 (2003).





Li, Y., et al., J. Biol. Chem. 278(16):13663-13671 (2003). Liu, X., et al., J. Biol. Chem. 277(42):39312-39319 (2002).