

# MEK2 (MAP2K2) Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7961c

## Product Information

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<b>Application</b>	WB, IHC-P, IF, E
<b>Primary Accession</b>	<a href="#">P36507</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB3597
<b>Calculated MW</b>	44424
<b>Antigen Region</b>	262-292

## Additional Information

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<b>Gene ID</b>	5605
<b>Other Names</b>	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
<b>Target/Specificity</b>	This MEK2 (MAP2K2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 262-292 amino acids from the Central region of human MEK2 (MAP2K2).
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
<b>Storage</b>	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.
<b>Precautions</b>	MEK2 (MAP2K2) Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	MAP2K2
<b>Synonyms</b>	MEK2, MKK2, PRKMK2

<b>Function</b>	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: <a href="#">29433126</a> ).
<b>Cellular Location</b>	Cytoplasm. Membrane; Peripheral membrane protein. Note=Membrane localization is probably regulated by its interaction with KSR1.

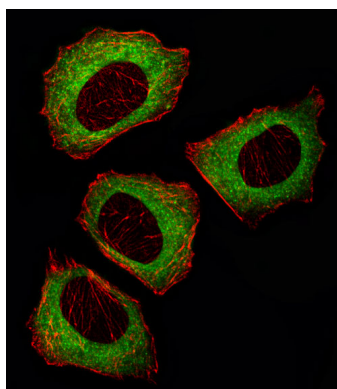
## Background

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.

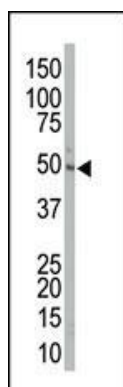
## References

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).

## Images

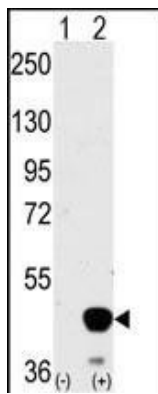


Fluorescent image of U251 cell stained with MEK2 (MAP2K2) Antibody (Center)(Cat#AP7961c/SA110819AW). U251 cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with MEK2 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated 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). MEK2 immunoreactivity is localized to Cytoplasm significantly.

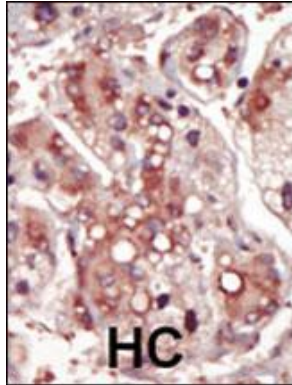


The anti-MAP2K2 Pab (Cat. #AP7961c) is used in Western blot to detect MAP2K2 in mouse liver tissue lysate.

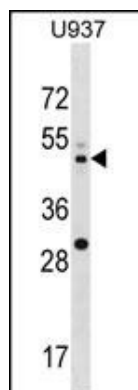
Western blot analysis of MAP2K2 (arrow) using MAP2K2



Antibody (Center) (Cat.#AP7961c).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the MAP2K2 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



MAP2K2 Antibody (A278) (Cat. #AP7961c) western blot analysis in U937 cell line lysates (35ug/lane).This demonstrates the MAP2K2 antibody detected the MAP2K2 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.