

### MAP2K2 Antibody (S222)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP7961e

#### Specification

## MAP2K2 Antibody (S222) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted

Host Clonality Isotype Calculated MW Antigen Region IHC-P, WB,E <u>P36507</u> <u>P36506</u>, <u>063932</u>, <u>090891</u>, <u>005116</u>, <u>001986</u>, <u>P29678</u>, <u>P31938</u>, <u>002750</u>, <u>063980</u>, <u>024324</u> Human Drosophila, Hamster, Mouse, Rabbit, Rat, Xenopus, Chicken Rabbit Polyclonal Rabbit IgG 44424 200-229

## MAP2K2 Antibody (S222) - 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 MAP2K2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 200-229 amino acids from human MAP2K2.

**Dilution** IHC-P~~1:10~50 WB~~1:1000 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

MAP2K2 Antibody (S222) is for research use only and not for use in diagnostic or therapeutic procedures.

### MAP2K2 Antibody (S222) - 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:<u>29433126</u>).

### **Cellular Location**

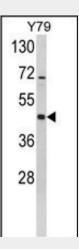
Cytoplasm. Membrane; Peripheral membrane protein. Note=Membrane localization is probably regulated by its interaction with KSR1.

## MAP2K2 Antibody (S222) - Protocols

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

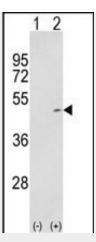
- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

MAP2K2 Antibody (S222) - Images

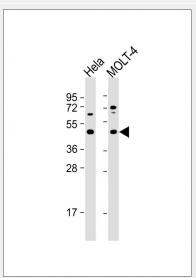


Western blot analysis of MAP2K2-S222 (Cat. #AP7961e) in Y79 cell line lysates (35ug/lane). MAP2K2 (arrow) was detected using the purified Pab.

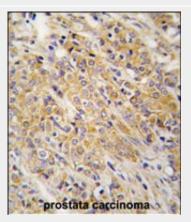




Western blot analysis of MAP2K2 (arrow) using rabbit polyclonal MAP2K2-S222 (Cat. #AP7961e). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the MAP2K2 gene (Lane 2).



All lanes : Anti-MAP2K2 Antibody (S222) 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.



Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with MAP2K2 Antibody (S222) (Cat.#AP7961e), 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.

# MAP2K2 Antibody (S222) - 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.

## MAP2K2 Antibody (S222) - 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).