

# MAP2K7 Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AW5572

## Product Information

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Application	WB
Primary Accession	<a href="#">Q14733</a>
Other Accession	<a href="#">Q8CE90</a> , <a href="#">Q4KSH7</a>
Reactivity	Human
Predicted	Dog, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47485
Isotype	Rabbit IgG
Antigen Source	HUMAN

## Additional Information

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Gene ID	5609
Antigen Region	343-376
Other Names	Dual specificity mitogen-activated protein kinase kinase 7, MAP kinase kinase 7, MAPKK 7, JNK-activating kinase 2, MAPK/ERK kinase 7, MEK 7, Stress-activated protein kinase kinase 4, SAPK kinase 4, SAPKK-4, SAPKK4, c-Jun N-terminal kinase kinase 2, JNK kinase 2, JNKK 2, MAP2K7, JNKK2, MEK7, MKK7, PRKMK7, SKK4
Dilution	WB~~1:2000
Target/Specificity	This MAP2K7 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 343-376 amino acids of human MAP2K7.
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	MAP2K7 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	MAP2K7
<b>Synonyms</b>	JNKK2, MEK7, MKK7, PRKMK7, SKK4
<b>Function</b>	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K4/MKK4, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4/MKK4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The monophosphorylation of JNKs on the Thr residue is sufficient to increase JNK activity indicating that MAP2K7/MKK7 is important to trigger JNK activity, while the additional phosphorylation of the Tyr residue by MAP2K4/MKK4 ensures optimal JNK activation. Has a specific role in JNK signal transduction pathway activated by pro-inflammatory cytokines. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Part of a non-canonical MAPK signaling pathway, composed of the upstream MAP3K12 kinase and downstream MAP kinases MAPK1/ERK2 and MAPK3/ERK1, that enhances the AP-1-mediated transcription of APP in response to APOE (PubMed: <a href="#">28111074</a> ).
<b>Cellular Location</b>	Nucleus. Cytoplasm.
<b>Tissue Location</b>	Ubiquitous; with highest level of expression in skeletal muscle. Isoform 3 is found at low levels in placenta, fetal liver, and skeletal muscle.

## Background

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Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K4/MKK4, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4/MKK4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The monophosphorylation of JNKs on the Thr residue is sufficient to increase JNK activity indicating that MAP2K7/MKK7 is important to trigger JNK activity, while the additional phosphorylation of the Tyr residue by MAP2K4/MKK4 ensures optimal JNK activation. Has a specific role in JNK signal transduction pathway activated by proinflammatory cytokines. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis.

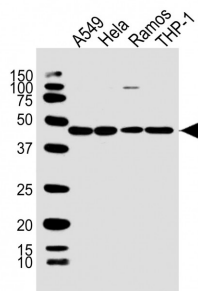
## References

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Lu X.,et al.J. Biol. Chem. 272:24751-24754(1997).  
Foltz I.N.,et al.J. Biol. Chem. 273:9344-9351(1998).  
Michael L.,et al.Biochem. Biophys. Res. Commun. 341:679-683(2006).  
Yang J.,et al.Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.

## Images

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All lanes : Anti-MAP2K7 Antibody (C-Term) at 1:2000 dilution Lane 1: A549 whole cell lysate Lane 2: HeLa whole cell lysate Lane 3: Ramos whole cell lysate Lane 4: THP-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 47 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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