

Product Name: MEK7 (5S16) Rabbit Monoclonal Antibody
Catalog #: AMRe13809

Summary

Production Name	MEK7 (5S16) Rabbit Monoclonal Antibody
Description	Rabbit Monoclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.
Purification	Affinity purification

Immunogen

Gene Name	MAP2K7
Alternative Names	MKK7; Jnk2; MAPKK7; PRKMK7; JNK-activating kinase 2; MAPKK 7; Mitogen Activated Protein Kinase kinase 7; SAPKK4; stress-activated protein kinase kinase 4;
Gene ID	5609.0
SwissProt ID	O14733.

Application

Dilution Ratio	WB 1:1000-1:2000
Molecular Weight	47kDa

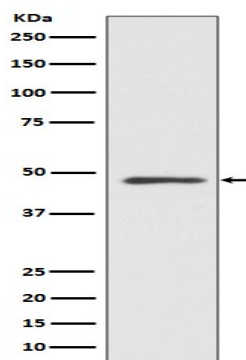
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Background

MKK7 is strongly activated by TNF- α , as well as other environmental stresses, whereas SEK1/MKK4, which activates both p38 and SAPK/JNK pathways, is not activated by TNF- α . Sequence alignment of the activation loop of the MAP kinase kinase family members indicates that Ser271 and Thr275 are potential phosphorylation sites that are crucial for the kinase activity. 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. 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:28111074](http://www.uniprot.org/citations/28111074)).

Research Area

Image Data



Western blot analysis of MEK5 expression in Hela cell lysate.

Note

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