

Anti-MEK4 Antibody

Catalog # ABO11584

Product Information

Application	WB
Primary Accession	P45985
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Dual specificity mitogen-activated protein kinase kinase 4(MAP2K4) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	6416
Other Names	Dual specificity mitogen-activated protein kinase kinase 4, MAP kinase kinase 4, MAPKK 4, 2.7.12.2, JNK-activating kinase 1, MAPK/ERK kinase 4, MEK 4, SAPK/ERK kinase 1, SEK1, Stress-activated protein kinase kinase 1, SAPK kinase 1, SAPKK-1, SAPKK1, c-Jun N-terminal kinase kinase 1, JNKK, MAP2K4, JNKK1, MEK4, MKK4, PRKMK4, SEK1, SERK1, SKK1
Calculated MW	44288
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse
Subcellular Localization	Cytoplasm . Nucleus .
Tissue Specificity	Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues.
Source	Eukaryota
Protein Name	Dual specificity mitogen-activated protein kinase kinase 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg Na ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human MEK4(360-378aa ELLKHPFILMYEERAVEVA), different from the related mouse and rat sequences by one amino acid.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.

Protein Information

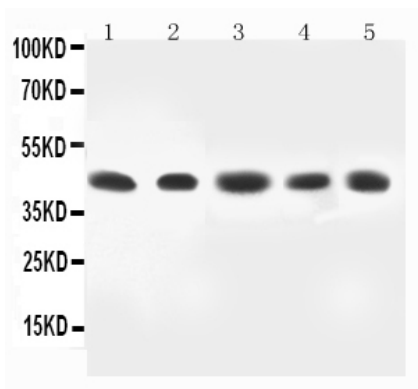
Name	MAP2K4
Synonyms	JNKK1, MEK4, MKK4, PRKMK4, SEK1, SERK1,
Function	Dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. Essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K7/MKK7, 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 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The phosphorylation of the Thr residue by MAP2K7/MKK7 seems to be the prerequisite for JNK activation at least in response to pro-inflammatory cytokines, while other stimuli activate both MAP2K4/MKK4 and MAP2K7/MKK7 which synergistically phosphorylate JNKs. MAP2K4 is required for maintaining peripheral lymphoid homeostasis. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis. Whereas MAP2K7/MKK7 exclusively activates JNKs, MAP2K4/MKK4 additionally activates the p38 MAPKs MAPK11, MAPK12, MAPK13 and MAPK14.
Cellular Location	Cytoplasm. Nucleus.
Tissue Location	Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues

Background

Dual specificity mitogen-activated protein kinase kinase 4(MAP2K4), also called SEK1 or JNKK1, is an enzyme that in humans is encoded by the MAP2K4 gene. It is mapped to 17p12. This gene encodes a dual specificity protein kinase that belongs to the Ser/Thr protein kinase family. This kinase is a direct activator of MAP kinases in response to various environmental stresses or mitogenic stimuli. It has been shown to activate MAPK8/JNK1, MAPK9/JNK2, and MAPK14/p38, but not MAPK1/ERK2 or MAPK3/ERK1. This kinase is phosphorylated, and thus activated by MAP3K1/MEKK. MAP2K4 was a specific activator of JNK1, JNK2, and p38, and it has been shown to interact with FLNC, MAPK8, MAPK8IP3 and AKT1.

Images

Anti-MEK4 antibody, ABO11584, All Western blottingAll lanes: Anti-MAP2K4(ABO11584) at 0.5ug/mlLane 1: Rat Skeletal Muscle Tissue Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugLane 3: A549 Whole Cell Lysate at 40ugLane 4: MM231 Whole Cell Lysate at 40ugLane 5:



CEM Whole Cell Lysate at 40ug Predicted bind size:
44KD Observed bind size: 44KD

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