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Anti-MEK4 Antibody
Catalog # ABO11584

Specification

Anti-MEK4 Antibody - 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.

Anti-MEK4 Antibody - 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 MW KDa

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.

Protein Name
Dual specificity mitogen-activated protein kinase kinase 4

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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.

Anti-MEK4 Antibody - 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

Anti-MEK4 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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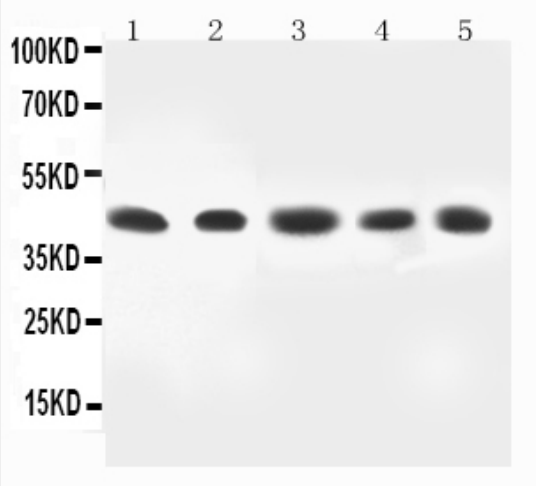
- Flow Cytomety
- Cell Culture

Anti-MEK4 Antibody - 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 40ugPredicted bind size: 44KDObserved bind size: 44KD

Anti-MEK4 Antibody - 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.