



MKK3 Rabbit mAb

Catalog No	YP-rAb-17781
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,IP,ELISA
Gene Name	MAP2K3
Protein Name	Dual specificity mitogen-activated protein kinase kinase 3
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	MAP2K3 ; MEK3 ; MKK3 ; PRKMK3 ; SKK2 ; Dual specificity mitogen-activated protein kinase kinase 3 ; MAP kinase kinase 3 ; MAPKK 3 ; MAPK/ERK kinase 3 ; MEK 3 ; Stress-activated protein kinase kinase 2 ; SAPK kinase 2 ; SAPKK-2 ; SAPKK2
Observed Band	39kD
Calculated Molecular Weight	39kD
Cell Pathway	Cytoplasm, Nucleus
Tissue Specificity	Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues.
Function	Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Defects in MAP2K3 may be involved in colon cancer.,enzyme regulation:Activated by dual phosphorylation on Ser-218 and Thr-222.,Function:Dual specificity kinase. Is activated by cytokines and environmental stress in vivo. Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in the MAP kinase p38.,PTM:Autophosphorylated.,PTM:Phosphorylation on Ser-218 and Thr-222 by MAP kinase kinase kinases regulates positively the kinase activity.,PTM:Yersinia yopJ may acetylate Ser/Thr residues, preventing phosphorylation and activation, thus blocking the MAPK signaling





pathway.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Binds to DYRK1B/MIRK and increases its kinase activity. Part of a complex with MAP3K3, RAC1 and CCM2. Interacts with Yersinia yopJ.,tissue specificity:Abundant expression is seen in the skeletal muscle. It is also widely expressed in other tissues.,

Background

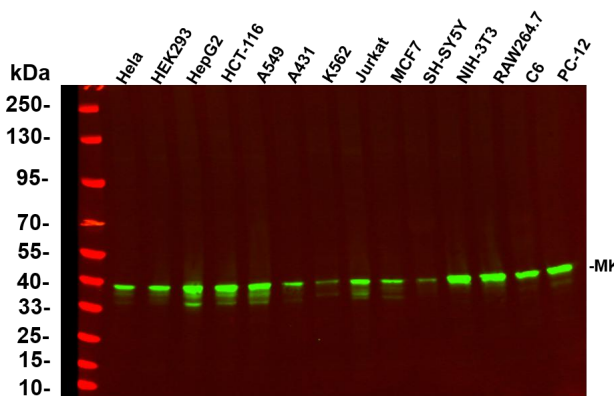
The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. This kinase is activated by mitogenic and environmental stress, and participates in the MAP kinase-mediated signaling cascade. It phosphorylates and thus activates MAPK14/p38-MAPK. This kinase can be activated by insulin, and is necessary for the expression of glucose transporter. Expression of RAS oncogene is found to result in the accumulation of the active form of this kinase, which thus leads to the constitutive activation of MAPK14, and confers oncogenic transformation of primary cells. The inhibition of this kinase is involved in the pathogenesis of Yersinia pseudotuberculosis. Multiple alternatively spliced transcript variants that encode distinct isoforms have been reported for this gene. [provided by RefSeq, Jul 2008],

matters needing attention

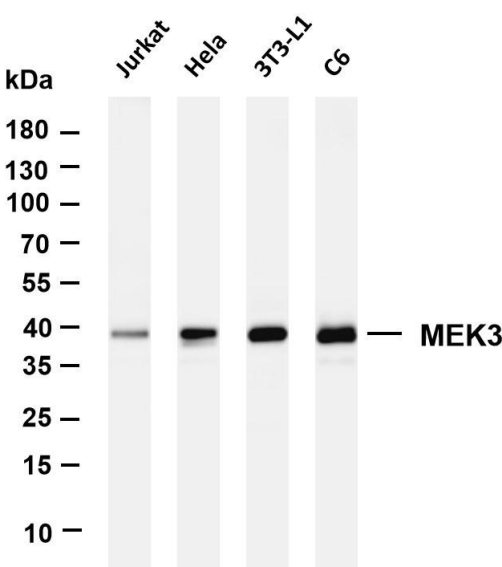
Avoid repeated freezing and thawing!

Usage suggestions

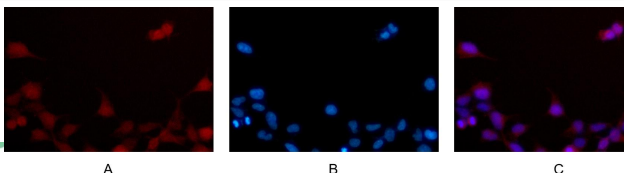
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4 °C, over night with a 1:5000 dilution. The Dylight 800-conjugated Goat anti-Rabbit antibody



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-MEK3 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: Jurkat Lane 2: HeLa Lane 3: 3T3-L1 Lane 4: C6 Predicted band size: 39kDa Observed band size: 39kDa



Immunofluorescence analysis of HEK293. Picture A: MEK3 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

