



MEK1 Rabbit mAb

Catalog No	YP-rAb-17910
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB,IHC,IF,ELISA
Gene Name	MAP2K1
Protein Name	Dual specificity mitogen-activated protein kinase kinase 1
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:2000-1:5000; WB 1:1000-1:5000; IF 1:200-1:1000; ELISA 1:5000-1:20000; 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	MAP2K1 ; MEK1 ; PRKMK1 ; Dual specificity mitogen-activated protein kinase kinase 1 ; MAP kinase kinase 1 ; MAPKK 1 ; MKK1 ; ERK activator kinase 1 ; MAPK/ERK kinase 1 ; MEK 1
Observed Band	43kD
Calculated Molecular Weight	43kD
Cell Pathway	Cytoplasm, Nucleus
Tissue Specificity	Widely expressed, with extremely low levels in brain.
Function	Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,Disease:Defects in MAP2K1 are a cause of cardiofaciocutaneous syndrome (CFC syndrome) [MIM:115150]; also known as cardio-facio-cutaneous syndrome. CFC syndrome is characterized by a distinctive facial appearance, heart defects and mental retardation. Heart defects include pulmonic stenosis, atrial septal defects and hypertrophic cardiomyopathy. Some affected individuals present with ectodermal abnormalities such as sparse, friable hair, hyperkeratotic skin lesions and a generalized ichthyosis-like condition. Typical facial features are similar to Noonan syndrome. They include high forehead with bitemporal constriction, hypoplastic supraorbital ridges, downslanting palpebral fissures, a depressed nasal bridge, and posteriorly angulated ears with prominent helices. The inheritance of CFC





syndrome is autosomal dominant.,enzyme regulation:Activated by phosphorylation.,Function:Catalyzes the concomitant phosphorylation of a threonine and a tyrosine residue in a Thr-Glu-Tyr sequence located in MAP kinases. Activates ERK1 and ERK2 MAP kinases.,PTM:Acetylation by Yersinia yopJ prevents phosphorylation and activation, thus blocking the MAPK signaling pathway.,PTM:Phosphorylation on Ser/Thr by MAP kinase kinase kinases (RAF or MEKK1) regulates positively the kinase activity.,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:Interacts with MORG1 (By similarity). Interacts with Yersinia yopJ.,

Background

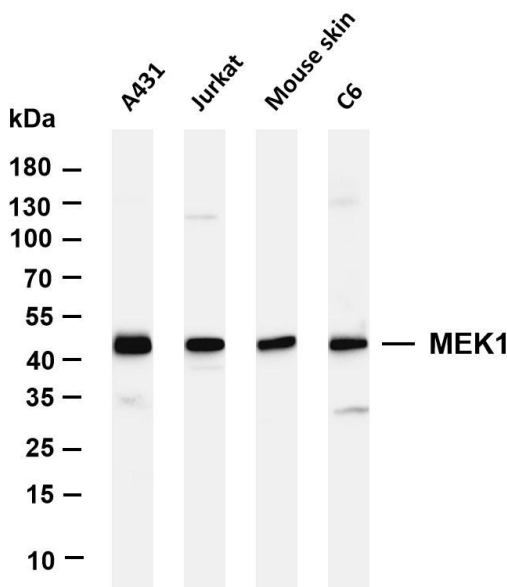
The protein encoded by this gene is a member of the dual specificity protein kinase family, which acts as a mitogen-activated protein (MAP) kinase kinase. MAP kinases, also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This protein kinase lies upstream of MAP kinases and stimulates the enzymatic activity of MAP kinases upon wide variety of extra- and intracellular signals. As an essential component of MAP kinase signal transduction pathway, this kinase is involved in many cellular processes such as proliferation, differentiation, transcription regulation and development. [provided by RefSeq, Jul 2008],

matters needing attention

Avoid repeated freezing and thawing!

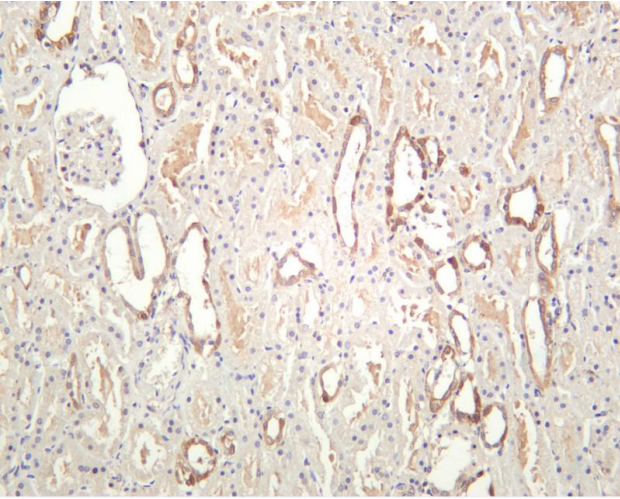
Usage suggestions

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

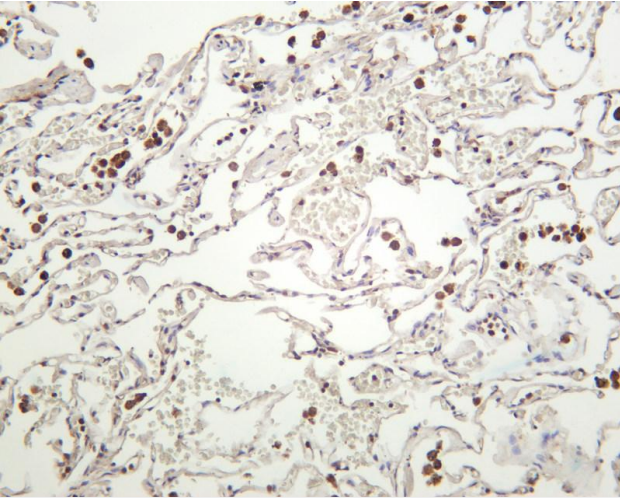


Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-MEK1 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: A431 Lane 2: Jurkat Lane 3: Mouse skin Lane 4: C6 Predicted band size: 43kDa Observed band size: 43kDa

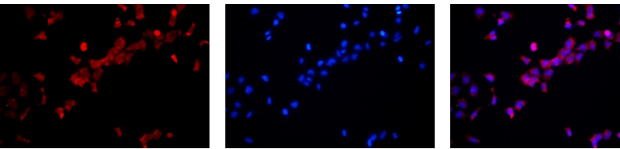




Human kidney was stained with anti-MEK1 rabbit antibody



Human lung was stained with anti-MEK1 rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: MEK1 antibody (red). Picture B: DAPI (blue). Picture C: Merge of A+B

A

B

C

