

MEKK4 Antibody (Center C1081)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14786c

Specification

MEKK4 Antibody (Center C1081) - Product Information

Application	IHC-P, WB,E
Primary Accession	O9Y6R4
Other Accession	O08648 , NP_006715.2
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	181685
Antigen Region	1067-1097

MEKK4 Antibody (Center C1081) - Additional Information

Gene ID 4216

Other Names

Mitogen-activated protein kinase kinase kinase 4, MAP three kinase 1, MAPK/ERK kinase kinase 4, MEK kinase 4, MEKK 4, MAP3K4, KIAA0213, MAPKKK4, MEKK4, MTK1

Target/Specificity

This MEKK4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1067-1097 amino acids from the Central region of human MEKK4.

Dilution

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

MEKK4 Antibody (Center C1081) is for research use only and not for use in diagnostic or therapeutic procedures.

MEKK4 Antibody (Center C1081) - Protein Information

Name MAP3K4

Synonyms KIAA0213, MAPKKK4, MEKK4, MTK1

Function Component of a protein kinase signal transduction cascade. Activates the CSBP2, P38 and JNK MAPK pathways, but not the ERK pathway. Specifically phosphorylates and activates MAP2K4 and MAP2K6.

Cellular Location

Cytoplasm, perinuclear region. Note=Localized in perinuclear vesicular-like structures, probably Golgi-associated vesicles.

Tissue Location

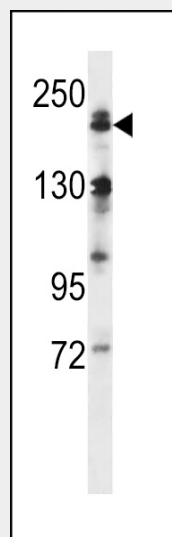
Expressed at high levels in heart, placenta, skeletal muscle and pancreas, and at lower levels in other tissues

MEKK4 Antibody (Center C1081) - Protocols

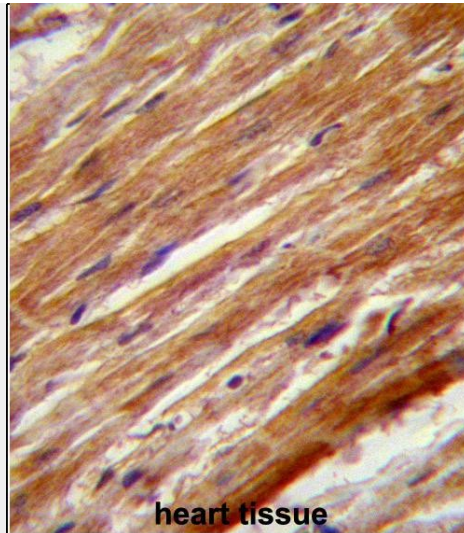
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

MEKK4 Antibody (Center C1081) - Images



MEKK4 Antibody (C1081) (Cat. #AP14786c) western blot analysis in human normal Uterus tissue lysates (35ug/lane). This demonstrates the MEKK4 antibody detected the MEKK4 protein (arrow).



MEKK4 Antibody (Center C1081) (Cat. #AP14786c) immunohistochemistry analysis in formalin fixed and paraffin embedded human heart tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of MEKK4 Antibody (Center C1081) for immunohistochemistry. Clinical relevance has not been evaluated.

MEKK4 Antibody (Center C1081) - Background

The central core of each mitogen-activated protein kinase (MAPK) pathway is a conserved cascade of 3 protein kinases: an activated MAPK kinase kinase (MAPKKK) phosphorylates and activates a specific MAPK kinase (MAPKK), which then activates a specific MAPK. While the ERK MAPKs are activated by mitogenic stimulation, the CSBP2 and JNK MAPKs are activated by environmental stresses such as osmotic shock, UV irradiation, wound stress, and inflammatory factors. This gene encodes a MAPKKK, the MEKK4 protein, also called MTK1. This protein contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MEKK4 in mammalian cells activated the CSBP2 and JNK MAPK pathways, but not the ERK pathway. In vitro kinase studies indicated that recombinant MEKK4 can specifically phosphorylate and activate PRKMK6 and SERK1, MAPKKs that activate CSBP2 and JNK, respectively but cannot phosphorylate PRKMK1, an MAPKK that activates ERKs. MEKK4 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway, and a minor mediator of the JNK pathway. Two alternatively spliced transcripts encoding distinct isoforms have been described.

MEKK4 Antibody (Center C1081) - References

Grucza, R.A., et al. *Addict Biol* 15(3):346-357(2010) Whitmarsh, A.J., et al. *Oncogene* 26(22):3172-3184(2007) Aissouni, Y., et al. *Biochem. Biophys. Res. Commun.* 338(2):808-814(2005) Abell, A.N., et al. *J. Biol. Chem.* 280(43):35793-35796(2005) Derbyshire, Z.E., et al. *Mol. Cell. Biochem.* 271 (1-2), 77-90 (2005) :