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MAPK34 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP1917a

Specification

MAPK34 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q9Y6R4

MAPK34 Antibody (N-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP1917a was selected from the N-term region of human MAPK34. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MAPK34 Antibody (N-term) Blocking Peptide - 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

MAPK34 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

MAPK34 Antibody (N-term) Blocking Peptide - Images

MAPK34 Antibody (N-term) Blocking Peptide - 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. MAPK34 is a MAPKKK, and contains a protein kinase catalytic domain at the C terminus. The N-terminal nonkinase domain may contain a regulatory domain. Expression of MAPK34 in mammalian cells activates the CSBP2 and JNK MAPK pathways, but not the ERK pathway. In vitro kinase studies indicate that recombinant MAPK34 can specifically phosphorylate and activate PRKMK6 and SERK1, MAPKKs that activate CSBP2 and JNK, respectively but cannot phosphorylate PRKMK1, an MAPKK that activates ERKs. MAPK34 is a major mediator of environmental stresses that activate the CSBP2 MAPK pathway, and a minor mediator of the JNK pathway.

MAPK34 Antibody (N-term) Blocking Peptide - References

Luo, W., et al., J. Biol. Chem. 278(39):37451-37458 (2003).Kovalsky, O., et al., J. Biol. Chem. 276(42):39330-39339 (2001).Posas, F., et al., EMBO J. 17(5):1385-1394 (1998).Takekawa, M., et al., Cell 95(4):521-530 (1998).Gerwins, P., et al., J. Biol. Chem. 272(13):8288-8295 (1997).