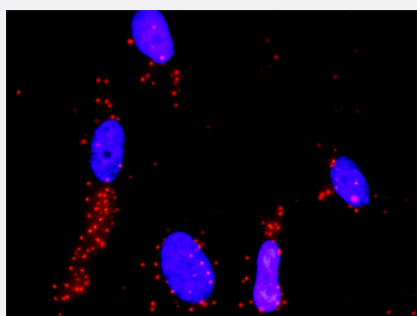


MAP2K3 & MAP3K4 Protein Protein Interaction Antibody Pair

Catalog # DI0491

Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between MAP2K3 and MAP3K4. HeLa cells were stained with anti-MAP2K3 rabbit purified polyclonal antibody 1:1200 and anti-MAP3K4 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Specification

Product Description

This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the MAP2K3 protein, and the other against the MAP3K4 protein for use in [in situ Proximity Ligation Assay](#). [See Publication Reference below](#).

Reactivity

Human

Quality Control Testing

Protein protein interaction immunofluorescence result.
Representative image of Proximity Ligation Assay of protein-protein interactions between MAP2K3 and MAP3K4. HeLa cells were stained with anti-MAP2K3 rabbit purified polyclonal antibody 1:1200 and anti-MAP3K4 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Supplied Product

Antibody pair set content:
1. MAP2K3 rabbit purified polyclonal antibody (100 ug)
2. MAP3K4 mouse monoclonal antibody (40 ug)
*Reagents are sufficient for at least 30-50 assays using recommended protocols.

Storage Instruction

Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze-thaw cycle. Reagents should be returned to -20°C storage immediately after use.

Applications

- *In situ* Proximity Ligation Assay (Cell)

Gene Info — MAP3K4

Entrez GeneID [4216](#)

Gene Name MAP3K4

Gene Alias FLJ42439, KIAA0213, MAPKKK4, MEKK4, MTK1, PRO0412

Gene Description mitogen-activated protein kinase kinase kinase 4

Omim ID [602425](#)

Gene Ontology [Hyperlink](#)

Gene Summary

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. [provided by RefSeq]

Other Designations

MAP/ERK kinase kinase 4|MAPK/ERK kinase kinase 4|SSK2/SSK22 MAP kinase kinase kinase, yeast, homolog of|dJ473J16.1 (mitogen-activated protein kinase kinase kinase 4)|predicted protein of HQ0412

Gene Info — MAP2K3

Entrez GeneID [5606](#)

Gene Name MAP2K3

Gene Alias MAPKK3, MEK3, MKK3, PRKMK3

Gene Description mitogen-activated protein kinase kinase 3

Omim ID [602315](#)

Gene Ontology [Hyperlink](#)

Gene Summary

The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP 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]

Other Designations

MAP kinase kinase 3|MAPK/ERK kinase 3|OTTHUMP00000166044|dual specificity mitogen activated protein kinase kinase 3

Pathway

- [Amyotrophic lateral sclerosis \(ALS\)](#)
- [Fc epsilon RI signaling pathway](#)
- [GnRH signaling pathway](#)
- [GnRH signaling pathway](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [Toll-like receptor signaling pathway](#)

Disease

- [Tobacco Use Disorder](#)