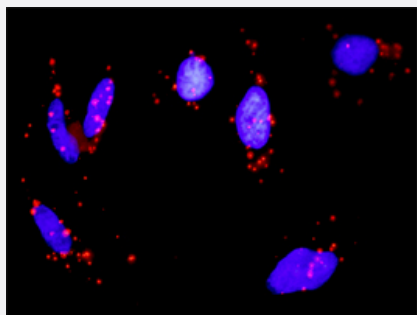


MAP3K3 & PRKACA Protein Protein Interaction Antibody Pair

Catalog # DI0552

Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between MAP3K3 and PRKACA. HeLa cells were stained with anti-MAP3K3 rabbit purified polyclonal antibody 1:1200 and anti-PRKACA 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 MAP3K3 protein, and the other against the PRKACA 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 MAP3K3 and PRKACA. HeLa cells were stained with anti-MAP3K3 rabbit purified polyclonal antibody 1:1200 and anti-PRKACA 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. MAP3K3 rabbit purified polyclonal antibody (100 ug)
2. PRKACA 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 — MAP3K3

Entrez GeneID [4215](#)

Gene Name MAP3K3

Gene Alias MAPKKK3, MEKK3

Gene Description mitogen-activated protein kinase kinase kinase 3

Omim ID [602539](#)

Gene Ontology [Hyperlink](#)

Gene Summary This gene product is a 626-amino acid polypeptide that is 96.5% identical to mouse Mekk3. Its catalytic domain is closely related to those of several other kinases, including mouse Mekk2, tobacco NPK, and yeast Ste11. Northern blot analysis revealed a 4.6-kb transcript that appears to be ubiquitously expressed. This protein directly regulates the stress-activated protein kinase (SAPK) and extracellular signal-regulated protein kinase (ERK) pathways by activating SEK and MEK1/2 respectively; it does not regulate the p38 pathway. In cotransfection assays, it enhanced transcription from a nuclear factor kappa-B (NFkB)-dependent reporter gene, consistent with a role in the SAPK pathway. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq]

Other Designations MAP/ERK kinase kinase 3|MAPK/ERK kinase kinase 3

Gene Info — PRKACA

Entrez GeneID [5566](#)

Gene Name PRKACA

Gene Alias MGC102831, MGC48865, PKACA

Gene Description protein kinase, cAMP-dependent, catalytic, alpha

Omim ID [601639](#)

Gene Ontology [Hyperlink](#)

Gene Summary

cAMP is a signaling molecule important for a variety of cellular functions. cAMP exerts its effects by activating the cAMP-dependent protein kinase, which transduces the signal through phosphorylation of different target proteins. The inactive kinase holoenzyme is a tetramer composed of two regulatory and two catalytic subunits. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. The protein encoded by this gene is a member of the Ser/Thr protein kinase family and is a catalytic subunit of cAMP-dependent protein kinase. Alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq]

Other Designations

PKA C-alpha|cAMP-dependent protein kinase catalytic subunit alpha|cAMP-dependent protein kinase catalytic subunit alpha, isoform 1|protein kinase A catalytic subunit

Pathway

- [Apoptosis](#)
- [Calcium signaling pathway](#)
- [Chemokine signaling pathway](#)
- [Gap junction](#)
- [GnRH signaling pathway](#)
- [GnRH signaling pathway](#)
- [Hedgehog signaling pathway](#)
- [Insulin signaling pathway](#)
- [Long-term potentiation](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [Melanogenesis](#)
- [Neurotrophin signaling pathway](#)
- [Olfactory transduction](#)
- [Prion diseases](#)
- [Taste transduction](#)
- [Vascular smooth muscle contraction](#)

- [Vibrio cholerae infection](#)
- [Wnt signaling pathway](#)

Disease

- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Edema](#)