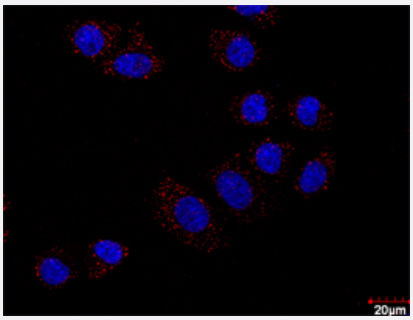
MAPK3 & DUSP1 Protein Protein Interaction Antibody Pair

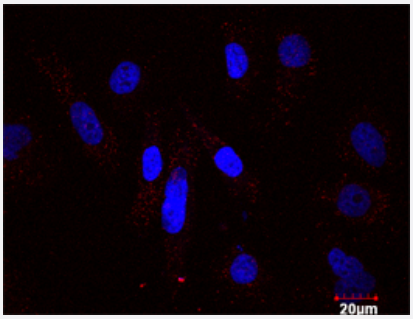
Catalog # DI0359 Size 1 Set

Applications



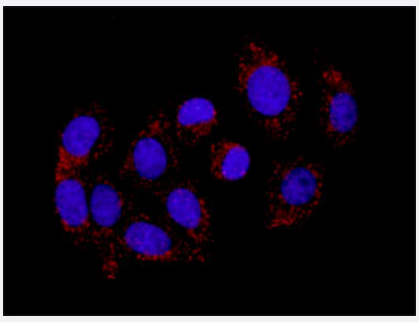
In situ Proximity Ligation Assay (Cell)

Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. HT-29 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



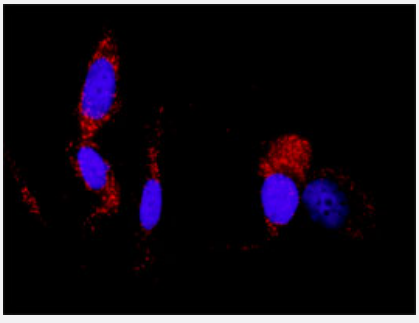
In situ Proximity Ligation Assay (Cell)

Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. PC-3 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. HT-29 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. PC-3 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

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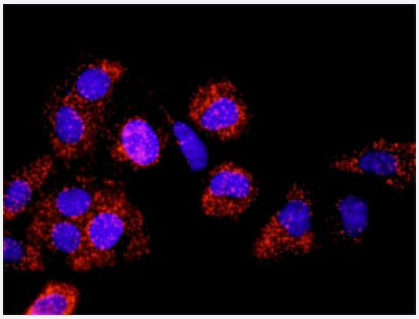
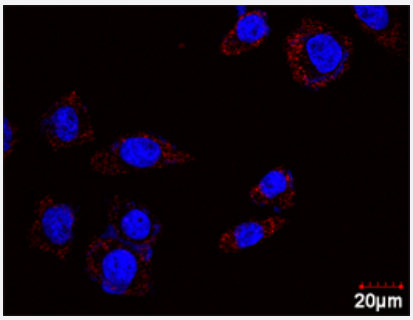


In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. A-549 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).



Representative image of Proximity Ligation Analysis of protein-protein interactions between MAPK3 and DUSP1. HeLa cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 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 MAPK3 protein, and the other against the DUSP1 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 Analysis of protein-protein interactions between MAPK3 and DUSP1. HeLa cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 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 Products	Antibody pair set content: 1. MAPK3 rabbit purified polyclonal antibody (100 ug) 2. DUSP1 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

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- *In situ* Proximity Ligation Assay (Cell)

  Confocal microscopy image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and DUSP1. HT-29 cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:100 and anti-DUSP1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

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Gene Info — DUSP1

Entrez GeneID	1843
Gene Name	DUSP1
Gene Alias	CL100, HVH1, MKP-1, MKP1, PTPN10
Gene Description	dual specificity phosphatase 1
Omim ID	600714
Gene Ontology	Hyperlink

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Gene Summary	The expression of DUSP1 gene is induced in human skin fibroblasts by oxidative/heat stress and growth factors. It specifies a protein with structural features similar to members of the non-recepto r-type protein-tyrosine phosphatase family, and which has significant amino-acid sequence simila rity to a Tyr/Ser-protein phosphatase encoded by the late gene H1 of vaccinia virus. The bacteriall y expressed and purified DUSP1 protein has intrinsic phosphatase activity, and specifically inacti vates mitogen-activated protein (MAP) kinase in vitro by the concomitant dephosphorylation of bo th its phosphothreonine and phosphotyrosine residues. Furthermore, it suppresses the activation of MAP kinase by oncogenic ras in extracts of Xenopus oocytes. Thus, DUSP1 may play an impo rtant role in the human cellular response to environmental stress as well as in the negative regulati on of cellular proliferation. [provided by RefSeq
Other Designations	serine/threonine specific protein phosphatase

Gene Info — MAPK3

Entrez GeneID	5595
Gene Name	MAPK3
Gene Alias	ERK1, HS44KDAP, HUMKER1A, MGC20180, P44ERK1, P44MAPK, PRKM3
Gene Description	mitogen-activated protein kinase 3
Omim ID	601795
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases, also kno wn as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates vari ous cellular processes such as proliferation, differentiation, and cell cycle progression in respons e to a variety of extracellular signals. This kinase is activated by upstream kinases, resulting in its translocation to the nucleus where it phosphorylates nuclear targets. Alternatively spliced transcrip t variants encoding different protein isoforms have been described. [provided by RefSeq
Other Designations	OTTHUMP00000174538|OTTHUMP00000174540|extracellular signal-regulated kinase 1|extrace llular signal-related kinase 1

Pathway

- Acute myeloid leukemia
- Adherens junction
- Axon guidance
- B cell receptor signaling pathway

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- Bladder cancer
- Chemokine signaling pathway
- Chronic myeloid leukemia
- Colorectal cancer
- Dorso-ventral axis formation
- Endometrial cancer
- ErbB signaling pathway
- Fc epsilon RI signaling pathway
- Fc gamma R-mediated phagocytosis
- Focal adhesion
- Gap junction
- Glioma
- GnRH signaling pathway
- Insulin signaling pathway
- Long-term depression
- Long-term potentiation
- MAPK signaling pathway
- MAPK signaling pathway
- Melanogenesis
- Melanoma
- mTOR signaling pathway
- Natural killer cell mediated cytotoxicity
- Neurotrophin signaling pathway
- Non-small cell lung cancer
- Pancreatic cancer
- Pathways in cancer

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- Prion diseases
- Prostate cancer
- Regulation of actin cytoskeleton
- Renal cell carcinoma
- T cell receptor signaling pathway
- TGF-beta signaling pathway
- Thyroid cancer
- Toll-like receptor signaling pathway
- Type II diabetes mellitus
- Vascular smooth muscle contraction
- VEGF signaling pathway

Disease

- Arthritis
- Asthma
- Asthma
- Autistic Disorder
- Cardiovascular Diseases
- Diabetes Mellitus
- Disease Models
- Edema
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Kidney Failure
- Lung Neoplasms
- Multiple Sclerosis

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