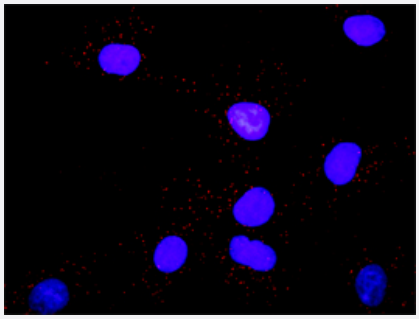
# MAPK3 & PTPN11 Protein Protein Interaction Antibody Pair

Catalog # DI0030 Size 1 Set

## Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and PTPN11. Mahlavu cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:1200 and anti-PTPN11 mouse purified polyclonal 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 PTPN11 protein for use in *in situ* Proximity Ligation Assay. See Publication Reference below. |
| **Reactivity** | Human |
| **Quality Control Testing** | Protein protein interaction immunofluorescence result.<br>Representative image of Proximity Ligation Assay of protein-protein interactions between MAPK3 and PTPN11. Mahlavu cells were stained with anti-MAPK3 rabbit purified polyclonal antibody 1:1200 and anti-PTPN11 mouse purified polyclonal 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:<br>1. MAPK3 rabbit purified polyclonal antibody (100 ug)<br>2. PTPN11 mouse purified polyclonal antibody (40 ug)<br>*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)

## 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 known as extracellular signal-regulated kinases (ERKs), act in a signaling cascade that regulates various cellular processes such as proliferation, differentiation, and cell cycle progression in response 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 transcript variants encoding different protein isoforms have been described. [provided by RefSeq |
| **Other Designations** | OTTHUMP00000174538\|OTTHUMP00000174540\|extracellular signal-regulated kinase 1\|extracellular signal-related kinase 1 |

## Gene Info — PTPN11

| | |
|---|---|
| **Entrez GeneID** | 5781 |
| **Gene Name** | PTPN11 |
| **Gene Alias** | BPTP3, CFC, MGC14433, NS1, PTP-1D, PTP2C, SH-PTP2, SH-PTP3, SHP2 |
| **Gene Description** | protein tyrosine phosphatase, non-receptor type 11 |
| **Omim ID** | 151100 163950 176876 607785 |
| **Gene Ontology** | Hyperlink |

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| | |
|---|---|
| **Gene Summary** | The protein encoded by this gene is a member of the protein tyrosine phosphatase (PTP) family. PTPs are known to be signaling molecules that regulate a variety of cellular processes including c ell growth, differentiation, mitotic cycle, and oncogenic transformation. This PTP contains two tand em Src homology-2 domains, which function as phospho-tyrosine binding domains and mediate t he interaction of this PTP with its substrates. This PTP is widely expressed in most tissues and pl ays a regulatory role in various cell signaling events that are important for a diversity of cell functio ns, such as mitogenic activation, metabolic control, transcription regulation, and cell migration. Mu tations in this gene are a cause of Noonan syndrome as well as acute myeloid leukemia. [provide d by RefSeq |
| **Other Designations** | protein tyrosine phosphatase-2\|protein-tyrosine phosphatase 2C |

## Pathway

- Acute myeloid leukemia
- Adherens junction
- Adipocytokine signaling pathway
- Axon guidance
- B cell receptor signaling pathway
- Bladder cancer
- Chemokine signaling pathway
- Chronic myeloid leukemia
- Chronic myeloid leukemia
- Colorectal cancer
- Dorso-ventral axis formation
- Endometrial cancer
- Epithelial cell signaling in Helicobacter pylori infection
- ErbB signaling pathway
- Fc epsilon RI signaling pathway
- Fc gamma R-mediated phagocytosis
- Focal adhesion
- Gap junction

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- Glioma
- GnRH signaling pathway
- Insulin signaling pathway
- Jak-STAT signaling pathway
- Leukocyte transendothelial migration
- Long-term depression
- Long-term potentiation
- MAPK signaling pathway
- Melanogenesis
- Melanoma
- mTOR signaling pathway
- Natural killer cell mediated cytotoxicity
- Natural killer cell mediated cytotoxicity
- Neurotrophin signaling pathway
- Neurotrophin signaling pathway
- Non-small cell lung cancer
- Pancreatic cancer
- Pathways in cancer
- Prion diseases
- Prostate cancer
- Regulation of actin cytoskeleton
- Renal cell carcinoma
- Renal cell carcinoma
- T cell receptor signaling pathway
- TGF-beta signaling pathway
- Thyroid cancer

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- Toll-like receptor signaling pathway
- Type II diabetes mellitus
- Vascular smooth muscle contraction
- VEGF signaling pathway

## Disease

- Abnormalities
- Addison Disease
- Adenocarcinoma
- Arrhythmias
- Articulation Disorders
- Asthma
- Atrophy
- Autistic Disorder
- Cardiovascular Diseases
- Celiac Disease
- Cleft Lip
- Cleft Palate
- Cognition
- Cognition Disorders
- Colitis
- Craniofacial Abnormalities
- Crohn Disease
- Developmental Disabilities
- Disease Models
- Disease Progression

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- Down Syndrome
- Ductus Arteriosus
- Dyslexia
- Ectodermal Dysplasia
- Esophageal Neoplasms
- Gastritis
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Glioma
- Growth Disorders
- Hearing
- Hearing Loss
- Heart Defects
- Heart Septal Defects
- Helicobacter Infections
- Hematologic Diseases
- Hypertrophy
- Infant
- Language Disorders
- LEOPARD Syndrome
- Leukemia
- Lymphedema
- Memory
- Metaplasia
- Mitochondrial Diseases
- Motor Skills

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- Motor Skills Disorders
- Myeloproliferative Disorders
- Neurofibromatoses
- Neurofibromatosis
- Neurofibromatosis 1
- Neuropsychological Tests
- Noonan Syndrome
- Obesity
- Ovarian Failure
- Pancreatic cancer
- Pancreatic Neoplasms
- Peptic Ulcer
- Polycystic Ovary Syndrome
- Puberty
- Pulmonary Valve Stenosis
- Skin Abnormalities
- Stomach Neoplasms
- Syndrome
- Thrombophilia
- Tobacco Use Disorder

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