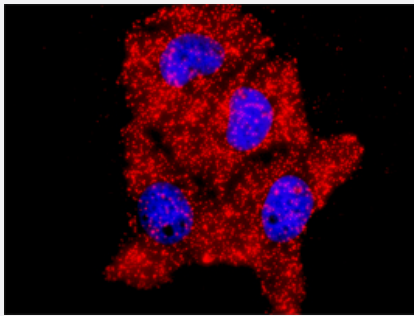


AKT1 & MAPK14 Protein Protein Interaction Antibody Pair

Catalog # DI0005

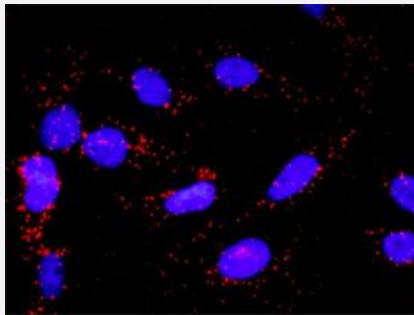
Size 1 Set

Applications



In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and MAPK14. Huh7 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-MAPK14 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 Assay of protein-protein interactions between AKT1 and MAPK14. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-MAPK14 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 AKT1 protein, and the other against the MAPK14 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 AKT1 and MAPK14. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-MAPK14 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. AKT1 rabbit purified polyclonal antibody (100 ug)
2. MAPK14 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)

Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and MAPK14. Huh7 cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-MAPK14 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

Gene Info — AKT1

Entrez GeneID[207](#)**Gene Name**

AKT1

Gene Alias

AKT, MGC99656, PKB, PKB-ALPHA, PRKBA, RAC, RAC-ALPHA

Gene Description

v-akt murine thymoma viral oncogene homolog 1

Omim ID[164730](#) [181500](#)**Gene Ontology**[Hyperlink](#)**Gene Summary**

The serine-threonine protein kinase encoded by the AKT1 gene is catalytically inactive in serum-starved primary and immortalized fibroblasts. AKT1 and the related AKT2 are activated by platelet-derived growth factor. The activation is rapid and specific, and it is abrogated by mutations in the pleckstrin homology domain of AKT1. It was shown that the activation occurs through phosphatidylinositol 3-kinase. In the developing nervous system AKT is a critical mediator of growth factor-induced neuronal survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating the serine/threonine kinase AKT1, which then phosphorylates and inactivates components of the apoptotic machinery. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq]

Other Designations

RAC-alpha serine/threonine-protein kinase|murine thymoma viral (v-akt) oncogene homolog-1|protein kinase B|rac protein kinase alpha

Gene Info — MAPK14

Entrez GeneID	1432
Gene Name	MAPK14
Gene Alias	CSBP1, CSBP2, CSPB1, EXIP, Mxi2, PRKM14, PRKM15, RK, SAPK2A, p38, p38ALPHA
Gene Description	mitogen-activated protein kinase 14
Omim ID	600289
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response. Four alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq]
Other Designations	Csai binding protein MAP kinase Mxi2 MAX-interacting protein 2 cytokine suppressive anti-inflammatory drug binding protein p38 MAP kinase p38 mitogen activated protein kinase p38alpha Exip stress-activated protein kinase 2A

Pathway

- [Acute myeloid leukemia](#)
- [Adipocytokine signaling pathway](#)
- [Amyotrophic lateral sclerosis \(ALS\)](#)
- [Apoptosis](#)
- [B cell receptor signaling pathway](#)
- [Chemokine signaling pathway](#)
- [Chronic myeloid leukemia](#)
- [Colorectal cancer](#)
- [Endometrial cancer](#)
- [Epithelial cell signaling in Helicobacter pylori infection](#)
- [ErbB signaling pathway](#)

- [Fc epsilon RI signaling pathway](#)
- [Fc epsilon RI signaling pathway](#)
- [Fc gamma R-mediated phagocytosis](#)
- [Focal adhesion](#)
- [Glioma](#)
- [GnRH signaling pathway](#)
- [Insulin signaling pathway](#)
- [Jak-STAT signaling pathway](#)
- [Leukocyte transendothelial migration](#)
- [MAPK signaling pathway](#)
- [MAPK signaling pathway](#)
- [Melanoma](#)
- [mTOR signaling pathway](#)
- [Neurotrophin signaling pathway](#)
- [Neurotrophin signaling pathway](#)
- [Non-small cell lung cancer](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)
- [Renal cell carcinoma](#)
- [Small cell lung cancer](#)
- [T cell receptor signaling pathway](#)
- [T cell receptor signaling pathway](#)
- [Tight junction](#)
- [Toll-like receptor signaling pathway](#)
- [Toll-like receptor signaling pathway](#)

- [VEGF signaling pathway](#)
- [VEGF signaling pathway](#)

Disease

- [Adenocarcinoma](#)
- [Alzheimer disease](#)
- [Amphetamine-Related Disorders](#)
- [Atherosclerosis](#)
- [Basal Ganglia Diseases](#)
- [Bipolar Disorder](#)
- [Breast Neoplasms](#)
- [Calcinosis](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cardiovascular Diseases](#)
- [Cognition](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)
- [Coronary Artery Disease](#)
- [Depressive Disorder](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetes Mellitus](#)
- [Disease Models](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)

- [Dominance](#)
- [Drug Toxicity](#)
- [Dyskinesia](#)
- [Edema](#)
- [Edema](#)
- [Endometrial Neoplasms](#)
- [Endometriosis](#)
- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [HIV Infections](#)
- [HIV Infections](#)
- [Leukemia](#)
- [Liver Cirrhosis](#)
- [Lung Neoplasms](#)
- [Memory](#)
- [Metabolic Syndrome X](#)
- [Narcolepsy](#)
- [Necrosis](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuropsychological Tests](#)
- [Obesity](#)
- [Obesity](#)
- [Osteoporosis](#)

- [Ovarian Failure](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Parkinson disease](#)
- [Polycystic Ovary Syndrome](#)
- [Polycystic Ovary Syndrome](#)
- [Precursor T-Cell Lymphoblastic Leukemia-Lymphoma](#)
- [Prostatic Neoplasms](#)
- [Psychiatric Status Rating Scales](#)
- [Psychoses](#)
- [Psychotic Disorders](#)
- [Puberty](#)
- [Puberty](#)
- [Pulmonary Disease](#)
- [Rectal Neoplasms](#)
- [Retinal Neoplasms](#)
- [Retinoblastoma](#)
- [Schizophrenia](#)
- [Schizophrenia](#)
- [Space Perception](#)
- [Thrombophilia](#)
- [Thrombophilia](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Tobacco Use Disorder](#)
- [Tuberculosis](#)

- [Urinary Bladder Neoplasms](#)
- [Verbal Learning](#)
- [Werner syndrome](#)