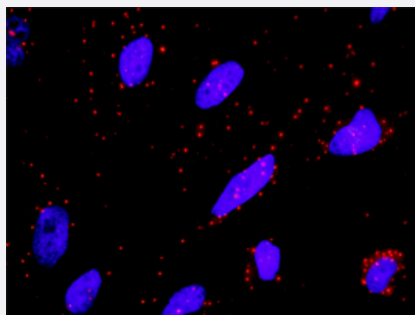


CDKN1A & STAT3 Protein Protein Interaction Antibody Pair

Catalog # DI0416

Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between CDKN1A and STAT3. HeLa cells were stained with anti-CDKN1A rabbit purified polyclonal antibody 1:1200 and anti-STAT3 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 CDKN1A protein, and the other against the STAT3 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 CDKN1A and STAT3. HeLa cells were stained with anti-CDKN1A rabbit purified polyclonal antibody 1:1200 and anti-STAT3 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. CDKN1A rabbit purified polyclonal antibody (100 ug)
2. STAT3 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 — CDKN1A

Entrez GeneID [1026](#)

Gene Name CDKN1A

Gene Alias CAP20, CDKN1, CIP1, MDA-6, P21, SDI1, WAF1, p21CIP1

Gene Description cyclin-dependent kinase inhibitor 1A (p21, Cip1)

Omim ID [116899](#)

Gene Ontology [Hyperlink](#)

Gene Summary

This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-CDK2 or -CDK4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen (PCNA), a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of CDK2, and may be instrumental in the execution of apoptosis following caspase activation. Two alternatively spliced variants, which encode an identical protein, have been reported. [provided by RefSeq]

Other Designations

CDK-interaction protein 1|DNA synthesis inhibitor|OTTHUMP00000016298|cyclin-dependent kinase inhibitor 1A|melanoma differentiation associated protein 6|wild-type p53-activated fragment 1

Gene Info — STAT3

Entrez GeneID [6774](#)

Gene Name STAT3

Gene Alias APRF, FLJ20882, HIES, MGC16063

Gene Description signal transducer and activator of transcription 3 (acute-phase response factor)

Omim ID [102582](#)

Gene Ontology [Hyperlink](#)

Gene Summary

The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. Three alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq]

Other Designations

DNA-binding protein APRF|acute-phase response factor|signal transducer and activator of transcription 3

Pathway

- [Acute myeloid leukemia](#)
- [Adipocytokine signaling pathway](#)
- [Bladder cancer](#)
- [Cell cycle](#)
- [Chemokine signaling pathway](#)
- [Chronic myeloid leukemia](#)
- [ErbB signaling pathway](#)
- [Glioma](#)
- [Jak-STAT signaling pathway](#)
- [Melanoma](#)
- [p53 signaling pathway](#)
- [Pancreatic cancer](#)
- [Pathways in cancer](#)
- [Pathways in cancer](#)
- [Prostate cancer](#)

Disease

- [Abortion](#)
- [Adenocarcinoma](#)
- [Asthma](#)
- [Ataxia telangiectasia](#)
- [Atherosclerosis](#)
- [Autoimmune Diseases](#)
- [Birth Weight](#)
- [Brain Neoplasms](#)
- [Breast cancer](#)
- [Breast cancer](#)
- [Breast Neoplasms](#)
- [Breast Neoplasms](#)
- [Bronchiolitis](#)
- [Carcinoma](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Cardiovascular Diseases](#)
- [Chromosome Aberrations](#)
- [Chronic Disease](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Colitis](#)
- [Colorectal Neoplasms](#)
- [Crohn Disease](#)

- [Depressive Disorder](#)
- [Dermatitis](#)
- [Diabetes Mellitus](#)
- [Diabetes Mellitus](#)
- [Disease Progression](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [DNA Damage](#)
- [DNA Damage](#)
- [Eczema](#)
- [Edema](#)
- [Edema](#)
- [Esophageal Neoplasms](#)
- [Fatty Liver](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Genomic Instability](#)
- [Glaucoma](#)
- [Glioblastoma](#)
- [Glioma](#)
- [Glioma](#)
- [Head and Neck Neoplasms](#)
- [Helicobacter Infections](#)
- [Hepatitis C](#)
- [Infant](#)
- [Inflammation](#)

- [Inflammatory Bowel Diseases](#)
- [Insulin Resistance](#)
- [Intestinal Neoplasms](#)
- [Kidney Failure](#)
- [Kidney Neoplasms](#)
- [Laryngeal Neoplasms](#)
- [Leiomyoma](#)
- [Leukemia](#)
- [Leukemia](#)
- [Liver Neoplasms](#)
- [Low Tension Glaucoma](#)
- [Lung Neoplasms](#)
- [Lung Neoplasms](#)
- [Lupus Erythematosus](#)
- [Lupus Nephritis](#)
- [Lymphoma](#)
- [Lymphoma](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Meningeal Neoplasms](#)
- [Meningioma](#)
- [Meningioma](#)
- [Mouth Neoplasms](#)
- [Multiple endocrine neoplasia](#)
- [Multiple Endocrine Neoplasia Type 1](#)
- [Multiple Sclerosis](#)

- [Myocardial Infarction](#)
- [Nasopharyngeal Neoplasms](#)
- [Neoplasm Invasiveness](#)
- [Neoplasm Metastasis](#)
- [Neoplasm Recurrence](#)
- [Neoplasms](#)
- [Neuroma](#)
- [Obesity](#)
- [Occupational Diseases](#)
- [Ocular Hypertension](#)
- [Ovarian cancer](#)
- [Ovarian Neoplasms](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Papillomavirus Infections](#)
- [Pharyngeal Neoplasms](#)
- [Precancerous Conditions](#)
- [Prostate cancer](#)
- [Prostatic Hyperplasia](#)
- [Prostatic Neoplasms](#)
- [Pulmonary Disease](#)
- [Pulmonary Disease](#)
- [Radiation Injuries](#)
- [Rectal Fistula](#)
- [Respiratory Syncytial Virus Infections](#)

- [Skin Diseases](#)
- [Skin Neoplasms](#)
- [Spondylitis](#)
- [Stomach Neoplasms](#)
- [Thyroid Neoplasms](#)
- [Tobacco Use Disorder](#)
- [Tooth Abnormalities](#)
- [Urinary Bladder Neoplasms](#)
- [Uterine Cervical Neoplasms](#)
- [Uterine Neoplasms](#)