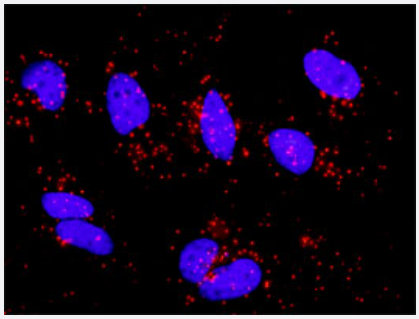
CDK2 & SMAD3 Protein Protein Interaction Antibody Pair

Catalog # DI0408 Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between CDK2 and SMAD3. HeLa cells were stained with anti-CDK2 rabbit purified polyclonal antibody 1:1200 and anti-SMAD3 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 CDK2 protein, and the other against the SMAD3 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 CDK2 and SMAD3. HeLa cells were stained with anti-CDK2 rabbit purified polyclonal antibody 1:1200 and anti-SMAD3 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. CDK2 rabbit purified polyclonal antibody (100 ug) 2. SMAD3 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)

Gene Info — CDK2

Entrez GeneID	1017
Gene Name	CDK2
Gene Alias	p33(CDK2)
Gene Description	cyclin-dependent kinase 2
Omim ID	116953
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein kinase is highly similar to the gene products of S. cerevisiae cdc28, and S. pombe cdc2. It is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and essential for cell cycle G1/S phase transition. This protein associates with and regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by its protein phosphorylation. Two alternatively spliced variants and multiple transcription initiation sites of this gene have been reported. [provided by RefSeq
Other Designations	cdc2-related protein kinase|cell devision kinase 2|p33 protein kinase

Gene Info — SMAD3

Entrez GeneID	4088
Gene Name	SMAD3
Gene Alias	DKFZp586N0721, DKFZp686J10186, HSPC193, HsT17436, JV15-2, MADH3, MGC60396
Gene Description	SMAD family member 3
Omim ID	603109
Gene Ontology	Hyperlink

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Gene Summary	The protein encoded by this gene belongs to the SMAD, a family of proteins similar to the gene products of the Drosophila gene 'mothers against decapentaplegic' (Mad) and the C. elegans gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions as a transcriptional modulator activated by transforming growth factor-beta and is thought to play a role in the regulation of carcinogenesis. [provided by RefSeq
Other Designations	MAD, mothers against decapentaplegic homolog 3|SMA- and MAD-related protein 3|SMAD, mothers against DPP homolog 3|mad homolog JV15-2|mad protein homolog|mothers against decapentaplegic homolog 3

Pathway

- Adherens junction
- Cell cycle
- Cell cycle
- Chronic myeloid leukemia
- Colorectal cancer
- p53 signaling pathway
- Pancreatic cancer
- Pathways in cancer
- Pathways in cancer
- Prostate cancer
- Small cell lung cancer
- TGF-beta signaling pathway
- Wnt signaling pathway

Disease

- Alzheimer disease
- Anemia
- Asthma

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- Azoospermia
- Bacteremia
- Breast cancer
- Breast cancer
- Breast Neoplasms
- Breast Neoplasms
- Chromosome Aberrations
- Cleft Lip
- Cleft Palate
- Coronary Artery Disease
- Crohn Disease
- Diabetes Mellitus
- Diabetes Mellitus
- Diabetic Nephropathies
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Graft vs Host Disease
- Head and Neck Neoplasms
- Hypersensitivity
- Hypertension
- Keloid
- Kidney Failure
- Kidney Failure
- Liver Cirrhosis
- Lymphoma
- Neoplasm Invasiveness

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- Neoplasm Recurrence
- Neoplasms
- Obesity
- Occupational Diseases
- Osteoarthritis
- Osteoporosis
- Ovarian cancer
- Ovarian cancer
- Ovarian Failure
- Ovarian Neoplasms
- Ovarian Neoplasms
- Pancreatic cancer
- Pancreatic Neoplasms
- Polycystic Ovary Syndrome
- Prostate cancer
- Prostatic Neoplasms
- Puberty
- Pulmonary Disease
- Thrombophilia
- Tobacco Use Disorder

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