# CDK7 & E2F1 Protein Protein Interaction Antibody Pair

Catalog # DI0016 Size 1 Set

## Applications



### In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between CDK7 and E2F1. Huh7 cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-E2F1 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 CDK7 and E2F1. HeLa cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-E2F1 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-prot ein interaction, one against the CDK7 protein, and the other against the E2F1 protein for use in <u>in sit</u> <u>u Proximity Ligation Assay</u> . 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 CDK7 and E2F1. HeLa cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-E 2F1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein inter action complex. The images were analyzed using an optimized freeware (BlobFinder) download fro m The Centre for Image Analysis at Uppsala University.

Product Information
Antibody pair set content: 1. CDK7 rabbit purified polyclonal antibody (100 ug) 2. E2F1 mouse monoclonal antibody (40 ug) *Reagents are sufficient for at least 30-50 assays using recommended protocols.
Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze tha w cycle. Reagents should be returned to -20°C storage immediately after use.

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## Gene Info — CDK7

Entrez GenelD	1022
Gene Name	CDK7
Gene Alias	CAK1, CDKN7, MO15, STK1, p39MO15
Gene Description	cyclin-dependent kinase 7
Omim ID	<u>601955</u>
Gene Ontology	<u>Hyperlink</u>
Gene Summary	The protein encoded by this gene is a member of the cyclin-dependent protein kinase (CDK) family. CDK family members are highly similar to the gene products of Saccharomyces cerevisiae cdc 28, and Schizosaccharomyces pombe cdc2, and are known to be important regulators of cell cycl e progression. This protein forms a trimeric complex with cyclin H and MAT1, which functions as a Cdk-activating kinase (CAK). It is an essential component of the transcription factor TFIIH, that is i nvolved in transcription initiation and DNA repair. This protein is thought to serve as a direct link b etween the regulation of transcription and the cell cycle. [provided by RefSeq
Other Designations	39 KDa protein kinase Cdk-activating kinase cell division protein kinase 7 cyclin-dependent kinas e 7 (MO15 homolog, Xenopus laevis, cdk-activating kinase) homolog of Xenopus MO15 Cdk-acti vating kinase kinase subunit of CAK serine/threonine kinase stk1 ser

Gene Info — E2F1	
Entrez GenelD	<u>1869</u>

😚 Abnova	Product Information
Gene Name	E2F1
Gene Alias	E2F-1, RBAP1, RBBP3, RBP3
Gene Description	E2F transcription factor 1
Omim ID	<u>189971</u>
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the E2F family of transcription factors. The E2F family plays a crucial role in the control of cell cycle and action of tumor suppressor proteins and is also a target of the transforming proteins of small DNA tumor viruses. The E2F proteins contain s everal evolutionally conserved domains found in most members of the family. These domains incl ude a DNA binding domain, a dimerization domain which determines interaction with the different iation regulated transcription factor proteins (DP), a transactivation domain enriched in acidic ami no acids, and a tumor suppressor protein association domain which is embedded within the trans activation domain. This protein and another 2 members, E2F2 and E2F3, have an additional cycli n binding domain. This protein binds preferentially to retinoblastoma protein pRB in a cell-cycle d ependent manner. It can mediate both cell proliferation and p53-dependent/independent apoptosi s. [provided by RefSeq
Other Designations	OTTHUMP0000030661 retinoblastoma-associated protein 1

### Pathway

- Bladder cancer
- Cell cycle
- Cell cycle
- Chronic myeloid leukemia
- <u>Glioma</u>
- <u>Melanoma</u>
- Non-small cell lung cancer
- Nucleotide excision repair
- Pancreatic cancer
- Pathways in cancer
- Prostate cancer
- Small cell lung cancer



### Disease

- <u>Adenocarcinoma</u>
- <u>Ataxia telangiectasia</u>
- <u>Colonic Neoplasms</u>
- <u>Colorectal Neoplasms</u>
- Esophageal Neoplasms
- Genetic Predisposition to Disease
- Genetic Predisposition to Disease
- Kidney Failure
- Lung Neoplasms
- Multiple Sclerosis
- <u>Neoplasms</u>
- Ovarian cancer
- Ovarian Neoplasms
- Ovarian Neoplasms
- Pulmonary Disease
- <u>Rectal Neoplasms</u>
- Urinary Bladder Neoplasms
- <u>Werner syndrome</u>