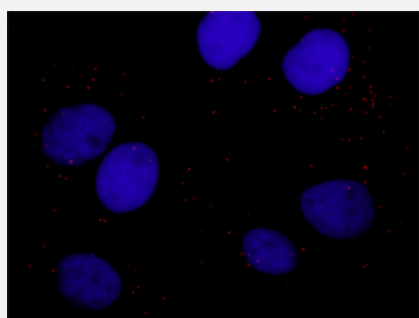


CDK7 & MCM7 Protein Protein Interaction Antibody Pair

Catalog # DI0047

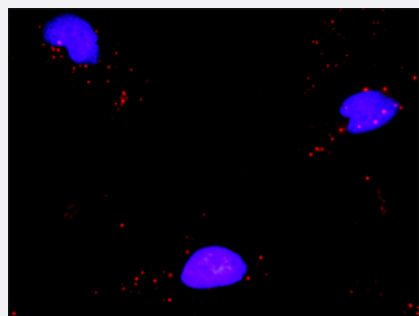
Size 1 Set

Applications



In situ Proximity Ligation Assay (Cell)

Representative image of Proximity Ligation Assay of protein-protein interactions between CDK7 and MCM7. Huh7 cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-MCM7 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 MCM7. HeLa cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-MCM7 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 CDK7 protein, and the other against the MCM7 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 CDK7 and MCM7. HeLa cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-MCM7 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. CDK7 rabbit purified polyclonal antibody (100 ug)
2. MCM7 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 CDK7 and MCM7. Huh7 cells were stained with anti-CDK7 rabbit purified polyclonal antibody 1:1200 and anti-MCM7 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 — CDK7

Entrez GeneID[1022](#)**Gene Name**

CDK7

Gene Alias

CAK1, CDKN7, MO15, STK1, p39MO15

Gene Description

cyclin-dependent kinase 7

Omim ID[601955](#)**Gene Ontology**[Hyperlink](#)**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* cdc28, and *Schizosaccharomyces pombe* cdc2, and are known to be important regulators of cell cycle 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 involved in transcription initiation and DNA repair. This protein is thought to serve as a direct link between 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 kinase 7 (MO15 homolog, *Xenopus laevis*, cdk-activating kinase)|homolog of *Xenopus* MO15 Cdk-activating kinase|kinase subunit of CAK|serine/threonine kinase stk1|ser

Gene Info — MCM7

Entrez GeneID	4176
Gene Name	MCM7
Gene Alias	CDABP0042, CDC47, MCM2, P1.1-MCM3, P1CDC47, P85MCM, PNAS-146
Gene Description	minichromosome maintenance complex component 7
Omim ID	600592
Gene Ontology	Hyperlink
Gene Summary	<p>The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by the MCM proteins is a key component of the pre-replication complex (pre_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. The MCM complex consisting of this protein and MCM2, 4 and 6 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. Cyclin D1-dependent kinase, CDK4, is found to associate with this protein, and may regulate the binding of this protein with the tumorsuppressor protein RB1/RB. Alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq]</p>
Other Designations	DNA replication licensing factor MCM7 MCM7 minichromosome maintenance deficient 7 homolog of S. cerevisiae Cdc47 minichromosome maintenance deficient 7

Pathway

- [Cell cycle](#)
- [Cell cycle](#)
- [DNA replication](#)
- [Nucleotide excision repair](#)

Disease

- [Adenocarcinoma](#)
- [Ataxia telangiectasia](#)
- [Autistic Disorder](#)
- [Colonic Neoplasms](#)
- [Colorectal Neoplasms](#)

- [Esophageal Neoplasms](#)
- [Genetic Predisposition to Disease](#)
- [Genetic Predisposition to Disease](#)
- [Kidney Failure](#)
- [Lung Neoplasms](#)
- [Multiple Sclerosis](#)
- [Ovarian Neoplasms](#)
- [Pulmonary Disease](#)
- [Rectal Neoplasms](#)
- [Urinary Bladder Neoplasms](#)
- [Werner syndrome](#)