

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## **AKT1 & CDKN1A Protein Protein Interaction Antibody Pair**

**Catalog #**: DI0088 規格:[1 Set]

#### List All

### **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 CDKN1A protein for use in <u>in situ</u> Proximity Ligation Assay. See Publication Reference below.

## Application Image

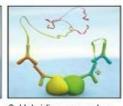
In situ Proximity Ligation Assay (Cell)



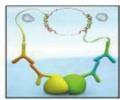
 Incubate with target primary antibodies



2. Add PLA probes PLUS and MINUS



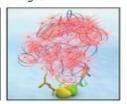
 Hybridize connector oligos



 Ligation to form a complete DNA circle



Rolling circle amplification



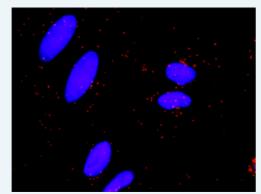
Add fluorescent probes to reveal interaction

## Reactivity:

Human

# Quality Control Testing:

**Quality Control** Protein protein interaction immunofluorescence result.



Representative image of Proximity Ligation Assay of protein-protein interactions between AKT1 and CDKN1A. HeLa cells were stained with anti-AKT1 rabbit purified polyclonal antibody 1:1200 and anti-CDKN1A 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 (20 ug)
- 2. CDKN1A 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 -



#### **Publication Reference**

 An analysis of protein-protein interactions in cross-talk pathways reveals CRKL as a novel prognostic marker in hepatocellular carcinoma.
Liu CH, Chen TC, Chau GY, Jan YH, Chen CH, Hsu CN, Lin KT, Juang YL, Lu PJ, Cheng HC, Chen MH, Chang CF, Ting YS, Kao CY, Hsiao M, Huang CY. Mol Cell Proteomics. 2013 Feb 8. [Epub ahead of print]

#### **Applications**

In situ Proximity Ligation Assay (Cell)

AKT1 CDKN1A

#### **Gene Information**

Entrez GeneID: 207

Gene Name: AKT1

Gene Alias: AKT,MGC99656,PKB,PKB-ALPHA,PRKBA,RAC,RAC-ALPHA

Gene v-akt murine thymoma viral oncogene homolog 1

**Description:** 

Omim ID: <u>164730</u>, <u>181500</u>

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 RAC-alpha serine/threonine-protein kinase,murine thymoma viral (v-akt)

Designations: oncogene homolog-1, protein kinase B, rac protein kinase alpha

**Gene Information** 

Entrez GeneID: 1026

Gene Name: CDKN1A

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

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

Description:

Omim ID: <u>116899</u>

Gene Ontology: Hyperlink

Gene Summary: This gene encodes a potent cyclin-dependent kinase inhibitor. The

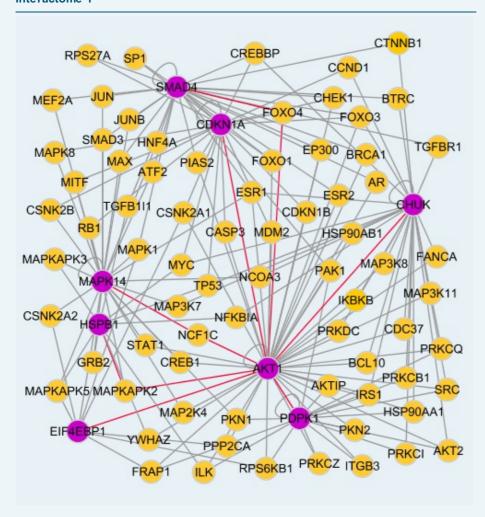
encoded protein binds to and inhibits the activity of cyclin-CDK2 or -

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:

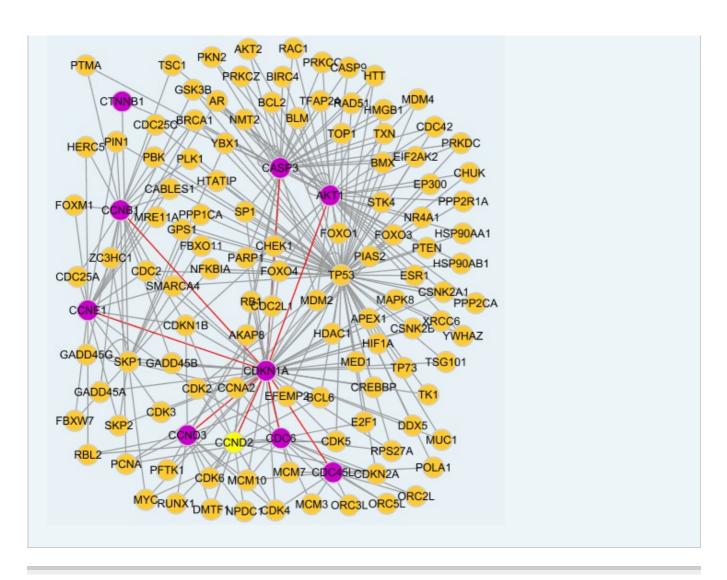
CDK-interaction protein 1,DNA synthesis inhibitor,OTTHUMP00000016298,cyclin-dependent kinase inhibitor 1A,melanoma differentiation associated protein 6,wild-type p53-activated fragment 1

### Interactome 1



### Interactome 2

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