

Cdk4 Polyclonal Antibody

Catalog No :	YT5198
Reactivity :	Human;Mouse;Rat
Applications :	IF;WB;IHC;ELISA
Target :	Cdk4
Fields :	>>Endocrine resistance;>>Cell cycle;>>p53 signaling pathway;>>PI3K-Akt signaling pathway;>>Cellular senescence;>>Tight junction;>>T cell receptor signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Cushing syndrome;>>Hepatitis C;>>Measles;>>Human cytomegalovirus infection;>>Influenza A;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1 infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Epstein-Barr virus infection;>>Pathways in cancer;>>Viral carcinogenesis;>>Pancreatic cancer;>>Glioma;>>Melanoma;>>Bladder cancer;>>Chronic myeloid leukemia;>>Small cell lung cancer;>>Non-small cell lung cancer;>>Breast cancer;>>Hepatocellular carcinoma
Gene Name :	CDK4
Protein Name :	Cyclin-dependent kinase 4
Human Gene Id :	1019
Human Swiss Prot No :	P11802
Mouse Gene Id :	12567
Mouse Swiss Prot No :	P30285
Rat Gene Id :	94201
Rat Swiss Prot No :	P35426
Immunogen :	The antiserum was produced against synthesized peptide derived from the N-terminal region of human CDK4. AA range:1-50

Specificity :	Cdk4 Polyclonal Antibody detects endogenous levels of Cdk4 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	IF 1:50-200 WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	35kD
Cell Pathway :	Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;p53;Tight junction;T_Cell_Receptor;Pathways in cancer;Pancreatic cancer;Glioma;Melanoma;Bladder cancer;Chronic myeloid leukemia;Small cell lung cancer;Non-small cell
Background :	cyclin dependent kinase 4(CDK4) Homo sapiens The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is highly similar to the gene products of <i>S. cerevisiae</i> cdc28 and <i>S. pombe</i> cdc2. It is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression. The activity of this kinase is restricted to the G1-S phase, which is controlled by the regulatory subunits D-type cyclins and CDK inhibitor p16(INK4a). This kinase was shown to be responsible for the phosphorylation of retinoblastoma gene product (Rb). Mutations in this gene as well as in its related proteins including D-type cyclins, p16(INK4a) and Rb were all found to be associated with tumorigenesis of a variety of cancers. Multiple polyadenylation sites of this gene have been reported. [provided by RefSeq, Jul 2008],
Function :	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:CDK4 mutations are involved in tumor formation.,disease:Defects in CDK4 are the cause of cutaneous malignant melanoma 3 (CMM3) [MIM:609048, 155600]. Malignant melanoma is a malignant neoplasm of melanocytes, arising de novo or from a preexisting benign nevus, which occurs most often in the skin but also may involve other sites.,enzyme regulation:Phosphorylation at Thr-172 is necessary for enzymatic activity.,function:Probably involved in the control of the cell cycle.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Forms a stable complex with D-type G1 cyclins. Interacts with SEI1 and ZNF655/VIK.,

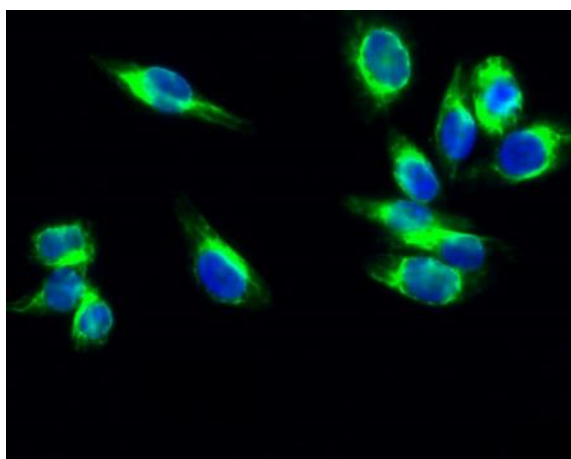
Subcellular Location :

Cytoplasm . Nucleus . Nucleus membrane . Cytoplasmic when non-complexed. Forms a cyclin D-CDK4 complex in the cytoplasm as cells progress through G(1) phase. The complex accumulates on the nuclear membrane and enters the nucleus on transition from G(1) to S phase. Also present in nucleoli and heterochromatin lumps. Colocalizes with RB1 after release into the nucleus. .

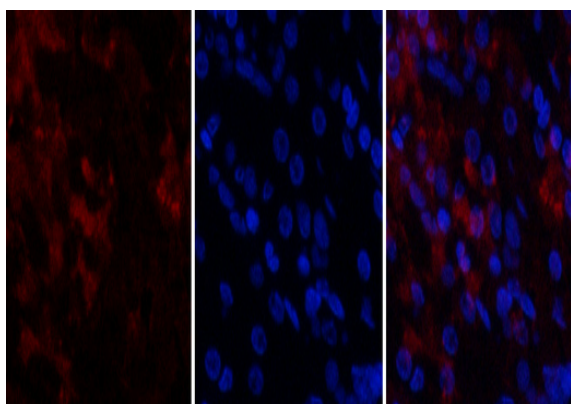
Expression :

Brain,Muscle,

Products Images

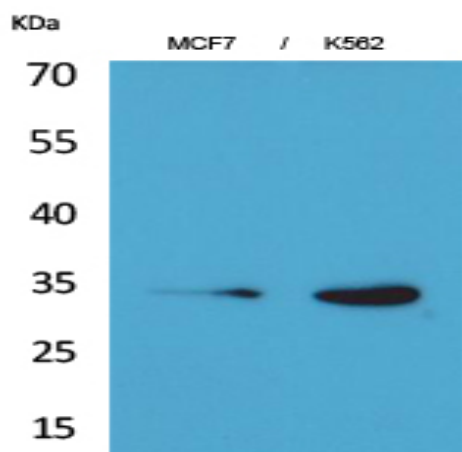


Immunofluorescence analysis of HeLa cell. 1, Cdk4 Polyclonal Antibody (green) was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog: RS3211 was diluted at 1:1000 (room temperature, 50 min). 3 DAPI (blue) 10 min.

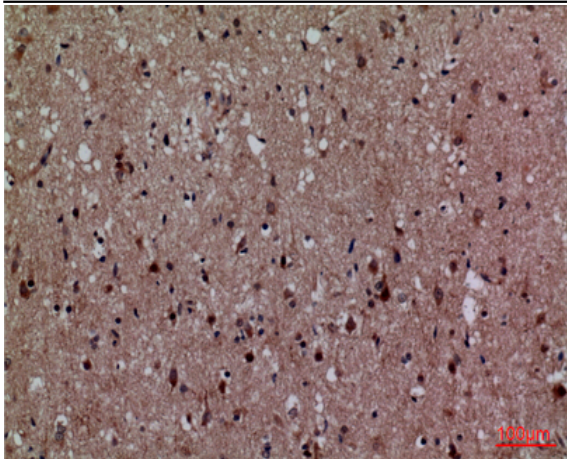


Immunofluorescence analysis of human-stomach tissue. 1, Cdk4 Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B.

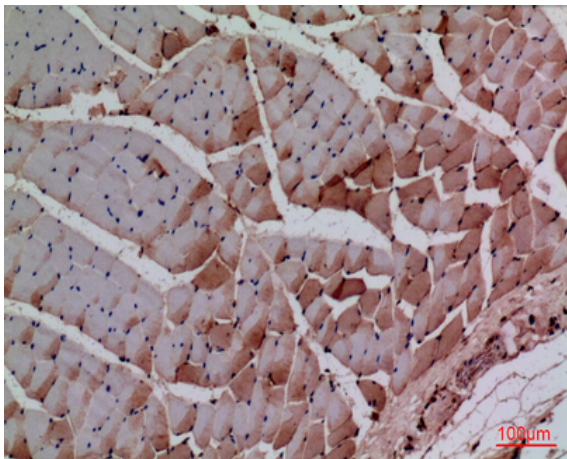
A B C



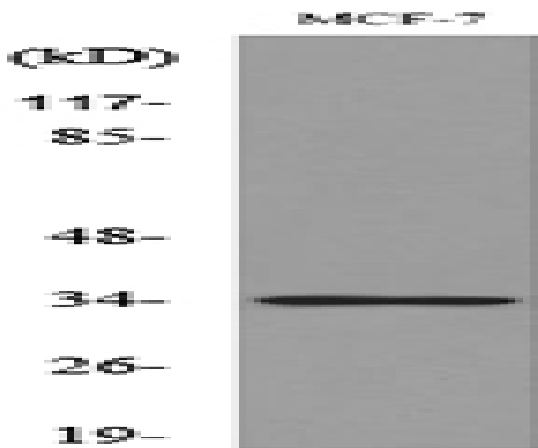
Western Blot analysis of MCF7, K562 cells using Cdk4 Polyclonal Antibody. Secondary antibody (catalog#: RS0002) was diluted at 1:20000.



Immunohistochemical analysis of paraffin-embedded human-brain, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded rat-muscle, antibody was diluted at 1:100



Western blot analysis of lysate from MCF7 cells, using CDK4 Antibody.