



CDK4 mouse mAb

Catalog No	YP-Ab-16570
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB
Gene Name	cdk4
Immunogen	Purified recombinant human CDK4 protein fragments expressed in E.coli.
Specificity	This antibody detects endogenous levels of CDK4 and does not cross-react with related proteins.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
Dilution	wb 1:1000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PSK J3;EC:2.7.11.22;Cyclin-dependent kinase 4;cyclin dependent kinase 4; CMM3;CDK4;Cdk 4;CDK4 protein;CDK4_HUMAN;Cell division kinase 4;Cell division protein kinase 4;CMM 3;Crk3;Melanoma cutaneous malignant 3; MGC14458;p34 cdk4;PSK-J3.
Observed Band	33kD
Calculated Molecular Weight	33kD
Cell Pathway	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. .
Tissue Specificity	Brain,Muscle,
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.,

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 *S. cerevisiae* cdc28 and *S. pombe* 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],

matters needing attention

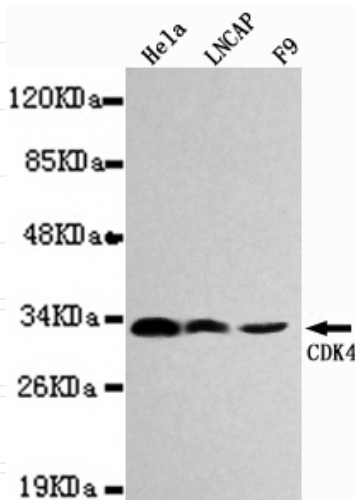
Avoid repeated freezing and thawing!

Usage suggestions

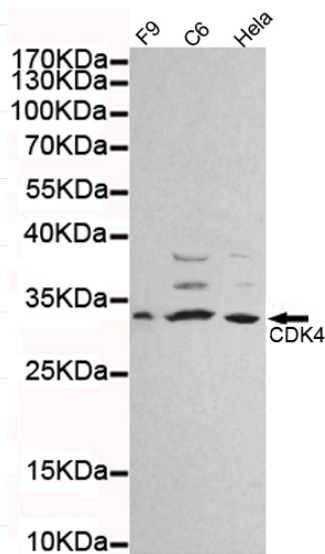
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Products Images



Western blot detection of CDK4 in HeLa, Lncap and F9 cell lysates using CDK4 mouse mAb (1:1000 diluted). Predicted band size: 34KDa. Observed band size: 33KDa.



Western blot detection of CDK4 in HeLa, C6 and F9 cell lysates using CDK4 mouse mAb (1:1000 diluted). Predicted band size: 34KDa. Observed band size: 34KDa.