

Product Name: KD-Validated Cdk4 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00260**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
Reactivity	Human
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 33.7kDa

Antigen Information

Gene Name	CDK4
Alternative Names	CDK4; Cyclin Dependent Kinase 4; PSK-J3; Cell Division Protein Kinase 4; Cyclin-Dependent Kinase 4; EC 2.7.11.22; EC 2.7.11; CMM3
Gene ID	1019.0
SwissProt ID	P11802
Immunogen	A synthesized peptide derived from human Cdk4

Background

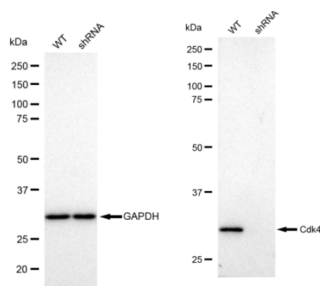
The protein encoded by this gene is a member of the Ser/Thr protein kinase family. This protein is highly similar to the gene products of *S. cerevisiae* cdc28 and *S. pombe* cdc2. It is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression. The activity 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]

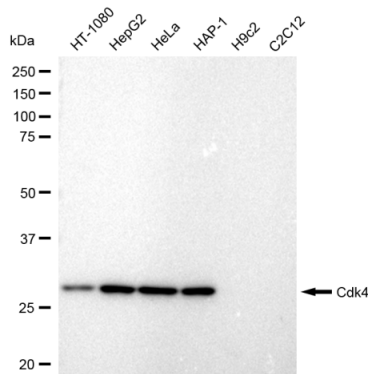
Research Area

Cell Biology, Epigenetics and Nuclear Signaling, Cancer, Isotype/Loading Controls

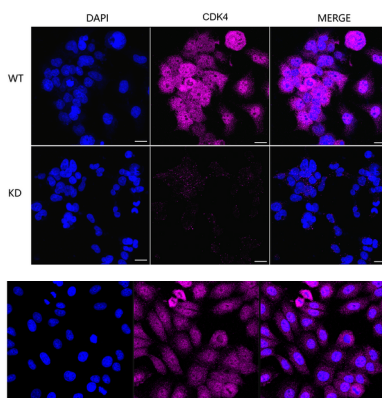
Image Data



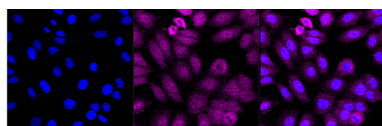
Western blotting analysis using Cdk4 antibody (KVA00260). Cdk4 expression in wild type (WT) and Cdk4 shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. GAPDH serves as a loading control. The blot was incubated with Cdk4 antibody (KVA00260, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



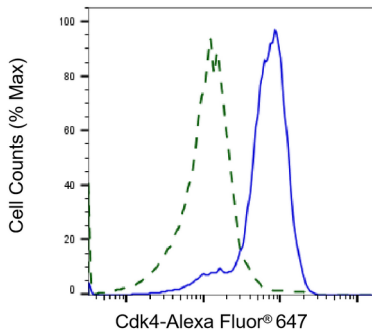
Western blotting analysis using Cdk4 antibody (KVA00260). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Cdk4 antibody (KVA00260, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



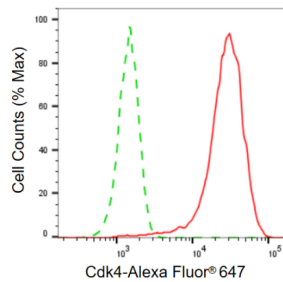
Immunocytochemical staining of HeLa cells using CDK4 antibody (KVA00260, 1:1,000), Top panel: wild-type (WT); Bottom panel: CDK4 shRNA knockdown (KD). Nuclei were stained blue with DAPI; CDK4 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with CDK4 antibody (KVA00260, 1:1,000). Nuclei were stained blue with DAPI; CDK4 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and smart gain: Medium. Scale bar, 20 µm.



Validation of Cdk4 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Cdk4 antibody (KVA00260, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Cdk4 expression in HepG2 cells using Cdk4 antibody (KVA00260,1:2,000). Green, isotype control; red, Cdk4.