
Product Name: KD-Validated Cyclin Dependent Kinase 2 Recombinant Rabbit Monoclonal Antibody**Catalog #: KVA00794**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
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; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 33.9kDa

Antigen Information

Gene Name	CDK2
Alternative Names	CDK2; Cyclin Dependent Kinase 2; Cell Division Protein Kinase 2; Cyclin-Dependent Kinase 2; P33 Protein Kinase; EC 2.7.11.22; CDKN2; Cdc2-Related Protein Kinase; P33(CDK2); EC 2.7.11
Gene ID	1017.0
SwissProt ID	P24941
Immunogen	A synthesized peptide derived from human Cdk2

Background

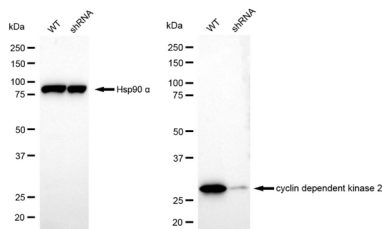
This gene encodes a member of a family of serine/threonine protein kinases that participate in cell cycle regulation. The encoded protein is the catalytic subunit of the cyclin-dependent protein kinase complex, which regulates progression through

the cell cycle. Activity of this protein is especially critical during the G1 to S phase transition. This protein associates with and regulated by other subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A), and p27Kip1 (CDKN1B). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2014]

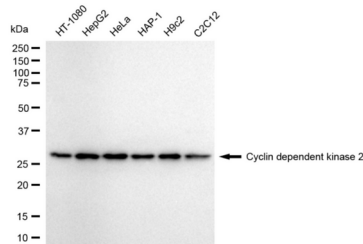
Research Area

Cell Biology, Epigenetics and Nuclear Signaling, Cancer

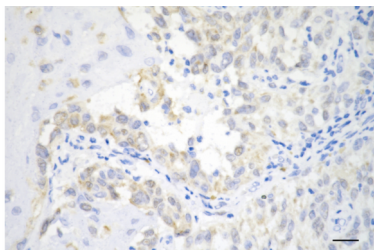
Image Data



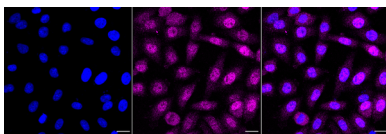
Western blotting analysis using cyclin dependent kinase 2 antibody (KVA00794). Cyclin dependent kinase 2 expression in wild type (WT) and cyclin dependent kinase 2 (CDK2) shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with cyclin dependent kinase 2 antibody (KVA00794, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



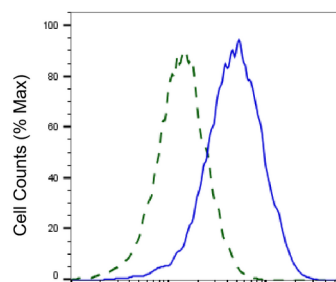
Western blotting analysis using cyclin dependent kinase 2 antibody (KVA00794). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with cyclin dependent kinase 2 antibody (KVA00794, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human melanoma using cyclin dependent kinase 2 antibody (KVA00794, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.

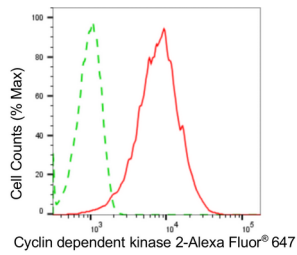


Immunocytochemical staining of HepG2 cells with Cyclin dependent kinase 2 antibody (KVA00794, 1:1,000). Nuclei were stained blue with DAPI; Cyclin dependent kinase 2 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Cyclin dependent kinase 2-Alexa Fluor® 647

Validation of Cyclin dependent kinase 2 knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with Cyclin dependent kinase 2 antibody (KVA00794, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of cyclin dependent kinase 2 expression in HepG2 cells using cyclin dependent kinase 2 antibody (KVA00794, 1:2,000). Green, isotype control; red, cyclin dependent kinase 2.