

Product Name: KD-Validated Cyclin D1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA00196

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC
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 1:2,000-1:10,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 33.7kDa

Antigen Information

Gene Name	CCND1
Alternative Names	CCND1; Cyclin D1; U21B31; PRAD1; BCL1; B-Cell Lymphoma 1 Protein; G1/S-Specific Cyclin-D1; B-Cell CLL/Lymphoma 1; BCL-1 Oncogene; PRAD1 Oncogene; D11S287E; Cyclin D1 (PRAD1: Parathyroid Adenomatosis 1); Parathyroid Adenomatosis 1; G1/S-Specific Cyclin D1; BCL-1
Gene ID	595.0
SwissProt ID	P24385
Immunogen	A synthesized peptide derived from human Cyclin D1

Background

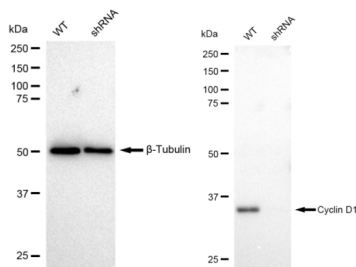
The protein encoded by this gene belongs to the highly conserved cyclin family, whose members are characterized by a

dramatic periodicity in protein abundance throughout the cell cycle. Cyclins function as regulators of CDK kinases. Different cyclins exhibit distinct expression and degradation patterns which contribute to the temporal coordination of each mitotic event. This cyclin forms a complex with and functions as a regulatory subunit of CDK4 or CDK6, whose activity is required for cell cycle G1/S transition. This protein has been shown to interact with tumor suppressor protein Rb and the expression of this gene is regulated positively by Rb. Mutations, amplification and overexpression of this gene, which alters cell cycle progression, are observed frequently in a variety of human cancers. [provided by RefSeq, Dec 2019]

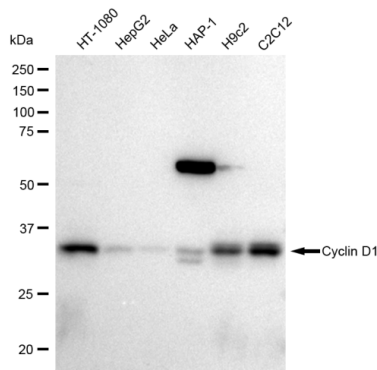
Research Area

Cell Biology, Epigenetics and Nuclear Signaling, Cancer

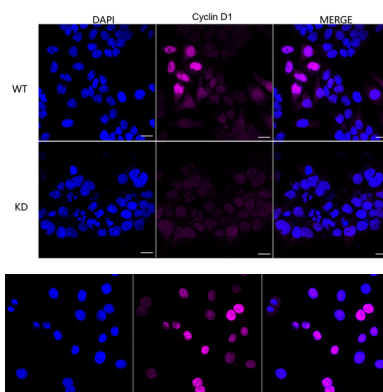
Image Data



Western blotting analysis using Cyclin D1 antibody (KVA00196). Cyclin D1 expression in wild type (WT) and Cyclin D1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Cyclin D1 antibody (KVA00196, 1:10,000) and HRP-conjugated goat anti rabbit secondary antibody (APS0635, 1:10,000) respectively.

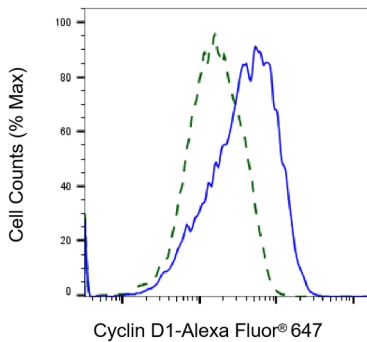


Western blotting analysis using Cyclin D1 antibody (KVA00196). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Cyclin D1 antibody (KVA00196, 1:10,000) and HRP-conjugated goat anti rabbit secondary antibody (APS0635, 1:10,000) respectively.

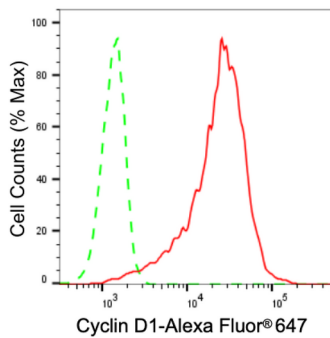


Immunocytochemical staining of HeLa cells using Cyclin D1 antibody (KVA00196, 1:1,000). Top panel: wild-type (WT); Bottom panel: Cyclin D1 shRNA knockdown (KD). Nuclei were stained blue with DAPI; Cyclin D1 was stained magenta with Alexa Fluor® 647. Scale bar, 20 µm. Permeabilization: Triton.

Immunocytochemical staining of C2C12 cells with Cyclin D1 antibody (KVA00196, 1:1,000). Nuclei were stained blue with DAPI; Cyclin D1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



Validation of Cyclin D1 knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Cyclin D1 antibody (KVA00196, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of Cyclin D1 expression in C2C12 cells using Cyclin D1 antibody (KVA00196, 1:2,000). Green, isotype control; red, Cyclin D1.