

KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI2305**Specification****KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P11802
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 34 kDa ; Observed, 30 kDa KDa
Gene Name	CDK4
Aliases	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
Immunogen	A synthesized peptide derived from human Cdk4

KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody - Additional Information

Gene ID	1019
Other Names	
Cyclin-dependent kinase 4, 2.7.11.22, Cell division protein kinase 4, PSK-J3, CDK4	

KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody - Protein Information**Name** CDK4**Function**

Ser/Thr-kinase component of cyclin D-CDK4 (DC) complexes that phosphorylate and inhibit members of the retinoblastoma (RB) protein family including RB1 and regulate the cell-cycle during G(1)/S transition. Phosphorylation of RB1 allows dissociation of the transcription factor E2F from the RB/E2F complexes and the subsequent transcription of E2F target genes which are responsible for the progression through the G(1) phase. Hypophosphorylates RB1 in early G(1) phase. Cyclin D-CDK4 complexes are major integrators of various mitogenic and antimitogenic signals. Also phosphorylates SMAD3 in a cell-cycle-dependent manner and represses its transcriptional activity. Component of the ternary complex, cyclin D/CDK4/CDKN1B, required for nuclear translocation and activity of the cyclin D-CDK4 complex.

Cellular Location

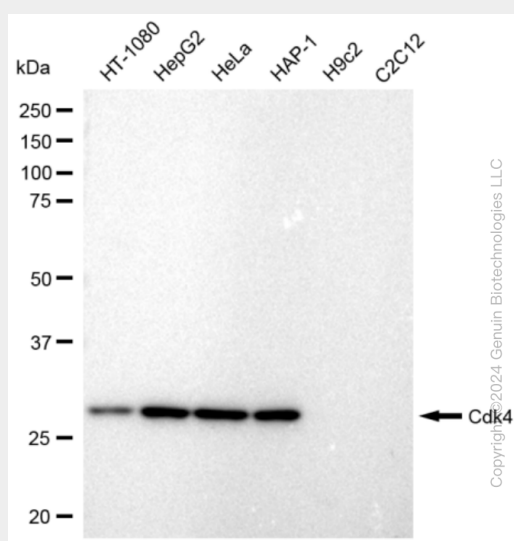
Cytoplasm. Nucleus. Nucleus membrane. Note=Cytoplasmic when non-complexed Forms a cyclin D-CDK4 complex in the cytoplasm as cells progress through G(1) phase. The complex accumulates on the nuclear membrane and enters the nucleus on transition from G(1) to S phase. Also present in nucleoli and heterochromatin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

KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody - Protocols

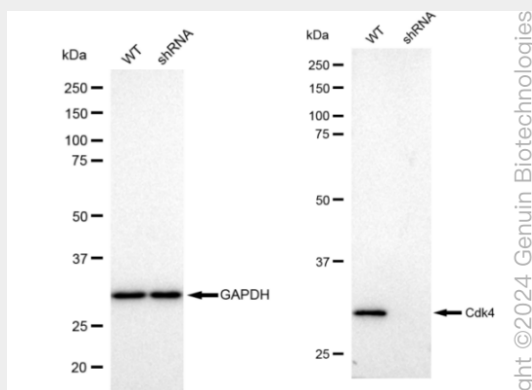
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

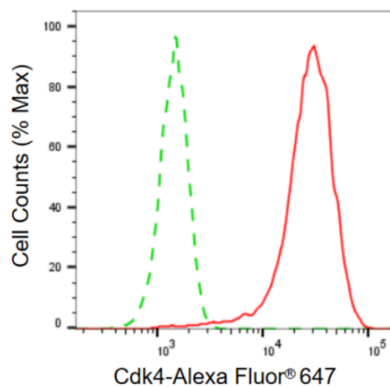
KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-Cdk4 antibody (Cat#AGI2305). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Cdk4 antibody (Cat#AGI2305, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.

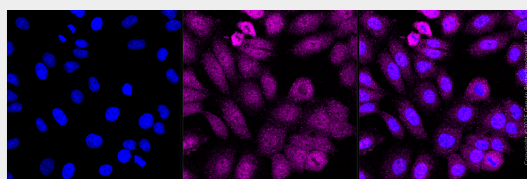


Western blotting analysis using anti-Cdk4 antibody (Cat#AGI2305). Cdk4 expression in wild type (WT) and Cdk4 shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. GAPDH serves as a loading control. The blot was incubated with anti-Cdk4 antibody (Cat#AGI2305, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (Cat.#201, 1:50,000) respectively.



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Flow cytometric analysis of Cdk4 expression in HepG2 cells using Cdk4 antibody (Cat#AGI2305, 1:2,000). Green, isotype control; red, Cdk4.



Immunocytochemical staining of HepG2 cells with CDK4 antibody (Cat#AGI2305, 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 μ m.