10320 Camino Santa Fe, Suite G
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KD-Validated Anti-Cyclin Dependent Kinase 4 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1782

Specification

KD-Validated Anti-Cyclin Dependent Kinase 4 Mouse Monoclonal Antibody - Product Information

Application	**WB, ICC**
Primary Accession	P11802
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG2a kappa**
Calculated MW	**Predicted, 34 kDa , observed , 33 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	**Recombinant protein of human CDK4**

KD-Validated Anti-Cyclin Dependent Kinase 4 Mouse 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-Cyclin Dependent Kinase 4 Mouse 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 mitogenenic 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.

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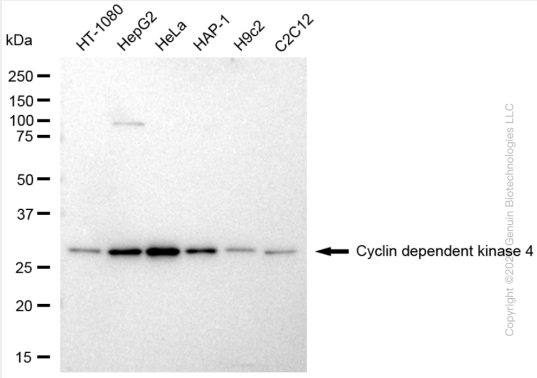
KD-Validated Anti-Cyclin Dependent Kinase 4 Mouse Monoclonal Antibody - Protocols

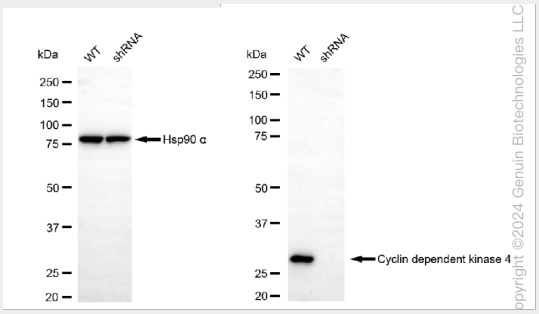
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

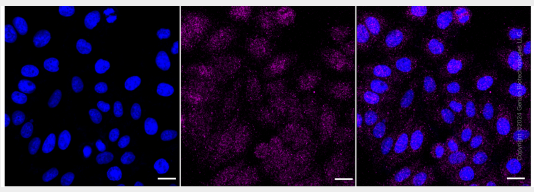
KD-Validated Anti-Cyclin Dependent Kinase 4 Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-Cyclin dependent kinase 4 antibody (Cat#AGI1782). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Cyclin dependent kinase 4 antibody (Cat#AGI1782, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-Cyclin dependent kinase 4 antibody (Cat#AGI1782). Cyclin dependent kinase 4 expression in wild type (WT) and Cyclin dependent kinase 4 shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-Cyclin dependent kinase 4 antibody (Cat#AGI1782, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.



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Immunocytochemical staining of HepG2 cells with anti-cyclin dependent kinase 4 antibody (Cat#AGI1782, 1:1,000). Nuclei were stained blue with DAPI; Cyclin dependent kinase 4 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.