Anti-Cdk4 Antibody [5-C3-G3-R]

HA601227

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 34 kDa
Clone number:	5-C3-G3-R

Description: Cell cycle progression is controlled in part by a family of cyclin proteins and cyclin dependent kinases (Cdks). Cdk proteins work in concert with the cyclins to phosphorylate key substrates involved in each phase of cell cycle progression . Another family of proteins, Cdk inhibitors, also plays a role in regulating the cell cycle by binding to cyclin-Cdk complexes and modulating their activity. Several Cdk proteins have been identified, including Cdk2-Cdk8, PCTAIRE-1-PCTAIRE-3, PITALRE and PITSLRE. Cdk4, in complex with D-type cyclins, is thought to regulate cell growth during the G1 phase of the cell cycle. This association with a D-type cyclin upregulates Cdk4 activity, whereas binding to the Cdk inhibitor p16 downregulates Cdk4 activity. Activation of the Cdk4-cyclin complexes requires phosphorylation on a single threonyl residue of Cdk4, catalyzed by a Cdk-activating protein (CAK).

Immunogen: Recombinant protein within human Cdk4 aa 80-303/303.

Positive control: A549 cell lysate, 293T cell lysate, HeLa cell lysate, MCF7 cell lysate, K-562 cell lysate.

Subcellular location: Cytoplasm, Nucleus, Nucleus membrane.

Database links: SwissProt: P11802 Human | P30285 Mouse

Recommended Dilutions:

WB	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

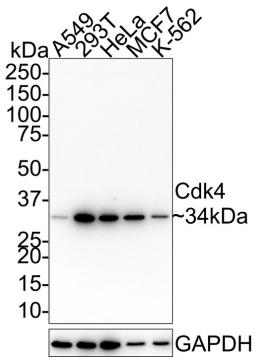

Fig1: Western blot analysis of Cdk4 on different lysates with Mouse anti-Cdk4 antibody (HA601227) at 1/1,000 dilution.

Lane 1: A549 cell lysate
Lane 2: 293T cell lysate
Lane 3: HeLa cell lysate
Lane 4: MCF7 cell lysate
Lane 5: K-562 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 34 kDa
Observed band size: 34 kDa

Exposure time: 17 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601227) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Wang Z et al. Migratory localization of cyclin D2-Cdk4 complex suggests a spatial regulation of the G1-S transition. Cell Struct Funct 33:171-183 (2008).
2. Bockstaele L et al. Differential regulation of cyclin-dependent kinase 4 (CDK4) and CDK6, evidence that CDK4 might not be activated by CDK7, and design of a CDK6 activating mutation. Mol Cell Biol 29:4188-4200 (2009).