

**Anti-CDK4 Rabbit Monoclonal Antibody**  
Catalog # ABO13458

**Specification**

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**Anti-CDK4 Rabbit Monoclonal Antibody - Product Information**

Application	WB, IF, ICC, IP
Primary Accession	<a href="#">P11802</a>
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid

**Description**

Anti-CDK4 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

**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

**Calculated MW**

33730 MW KDa

**Application Details**

WB 1:1000-1:2000<br>ICC/IF 1:50-1:200<br>IP 1:50

**Subcellular Localization**

Cytoplasm. Nucleus. Membrane. 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.

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human CDK4

**Purification**

Affinity-chromatography

**Storage**

**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.**

## 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.

## 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](#)

## Anti-CDK4 Rabbit Monoclonal Antibody - Images

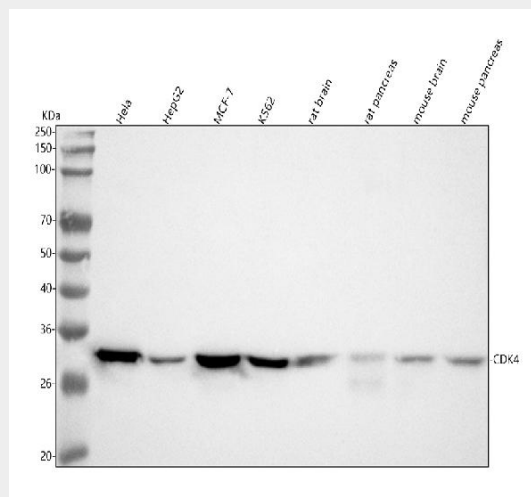
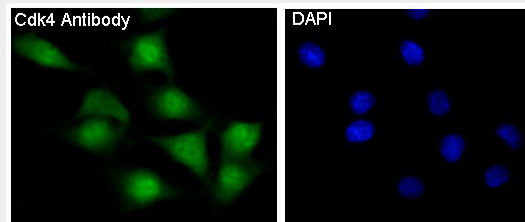


Figure 1. Western blot analysis of CDK4 using anti-CDK4 antibody (M00159).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,  
Lane 2: human HepG2 whole cell lysates,  
Lane 3: human MCF-7 whole cell lysates,  
Lane 4: human K562 whole cell lysates,  
Lane 5: rat brain tissue lysates,  
Lane 6: rat pancreas tissue lysates,  
Lane 7: mouse brain tissue lysates,  
Lane 8: mouse pancreas tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-CDK4 antigen affinity purified monoclonal antibody (Catalog # M00159) at 1:1000 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for CDK4 at approximately 34 kDa. The expected band size for CDK4 is at 34 kDa.



Immunofluorescent analysis of NIH/3T3 cells, using CDK4 Antibody.