10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# Anti-Cdk4 Antibody
**Catalog # ABO10750**

## Specification

### Anti-Cdk4 Antibody - Product Information

| | |
|---|---|
| Application | **WB** |
| Primary Accession | P30285 |
| Host | **Rabbit** |
| Reactivity | **Human, Mouse, Rat** |
| Clonality | **Polyclonal** |
| Format | **Lyophilized** |

**Description**
Rabbit IgG polyclonal antibody for Cyclin-dependent kinase 4(CDK4) detection. Tested with WB in Human;Mouse;Rat.

**Reconstitution**
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

### Anti-Cdk4 Antibody - Additional Information

**Gene ID** 12567

**Other Names**
Cyclin-dependent kinase 4, 2.7.11.22, CRK3, Cell division protein kinase 4, PSK-J3, Cdk4, Crk3

**Calculated MW**
33751 MW KDa

**Application Details**
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse<br>

**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 (By similarity). .

**Protein Name**
Cyclin-dependent kinase 4

**Contents**
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

**Immunogen**
A synthetic peptide corresponding to a sequence at the C-terminus of mouse Cdk4(283-303aa RISAFRALQHSYLHKEESDAE), different from the related rat sequence by one amino acid, and from the related human sequence by four amino acids.

**Purification**
Immunogen affinity purified.

**Cross Reactivity**
No cross reactivity with other proteins

Storage **At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

**Sequence Similarities**
Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.

## Anti-Cdk4 Antibody - Protein Information

**Name** Cdk4

**Synonyms** Crk3

**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 (By similarity).

**Cellular Location**
Cytoplasm {ECO:0000250|UniProtKB:P11802}. Nucleus {ECO:0000250|UniProtKB:P11802}. Nucleus membrane {ECO:0000250|UniProtKB:P11802}. 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 (By similarity). {ECO:0000250|UniProtKB:P11802}

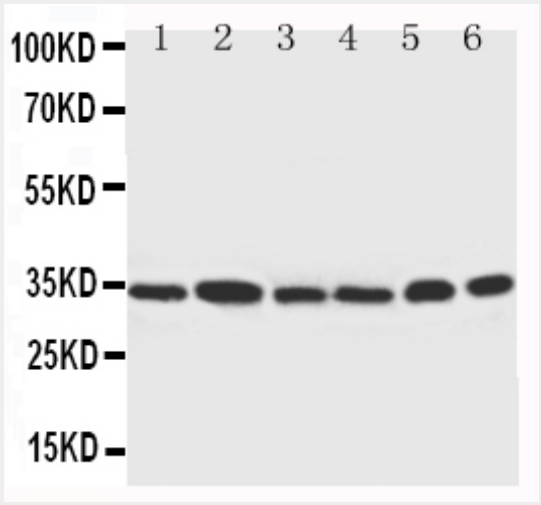
## Anti-Cdk4 Antibody - Protocols

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

## Anti-Cdk4 Antibody - Images

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Anti-Cdk4 antibody, ABO10750, Western blottingLane 1: Rat Thymus Tissue LysateLane 2: HELA Cell LysateLane 3: MCF-7 Cell LysateLane 4: A549 Cell LysateLane 5: COLO320 Cell LysateLane 6: JURKAT Cell Lysate

**Anti-Cdk4 Antibody - Background**

Cyclin-dependent kinase-4(CDK4) is a protein-serine kinase involved in the cell cycle. Human cell division is regulated primarily at the G1-to-S or the G2-to-M boundaries within the cell cycle. The complexes formed by CDK4 and the D-type cyclins are involved in the control of cell proliferation during the G1 phase. CDK4 is inhibited by p16, also known as cyclin-dependent kinase inhibitor-2. CDK4 is mapped to 12q14. CDK4 expression and activity are required for cytokine responsiveness in T cells.