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# CDK4 Rabbit mAb

Catalog # AP75244

## Product Information

| | |
|---|---|
| **Application** | WB, FC, IP |
| **Primary Accession** | P11802 |
| **Reactivity** | Rat, Human, Mouse |
| **Host** | Rabbit |
| **Clonality** | Monoclonal Antibody |
| **Isotype** | IgG |
| **Conjugate** | Unconjugated |
| **Purification** | Affinity Purified |
| **Calculated MW** | 33730 |

## Additional Information

| | |
|---|---|
| **Gene ID** | 1019 |
| **Other Names** | CDK4 |
| **Dilution** | WB~~1:500-1:1000 FC~~1:200-1:500 IP~~1:20-1:50 |
| **Format** | Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA. |
| **Storage** | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles. |

## Protein Information

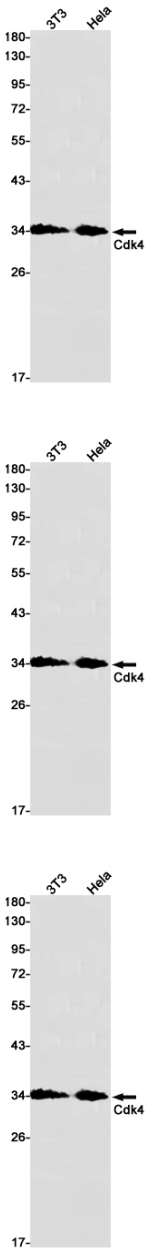
| | |
|---|---|
| **Name** | CDK4 {ECO:0000303\|PubMed:7652577, ECO:0000312\|HGNC:HGNC:1773} |
| **Function** | Ser/Thr-kinase component of cyclin D-CDK4 (DC) complexes that phosphorylate and inhibit members of the retinoblastoma (RB) protein family including RB1 and regulate the cell-cycle during G(1)/S 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.

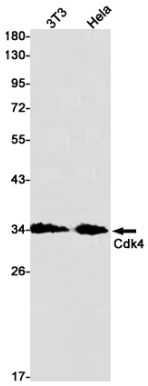
## Background

Cyclin-dependent kinase activity is regulated by T-loop phosphorylation (Thr172 in the case of CDK4), by the abundance of their cyclin partners, and by association with CDK inhibitors of the Cip/Kip or INK family of proteins. Cyclin D-CDK4 complexes are major integrators of various mitogenenic and antimitogenic signals.

## Images




Western blot analysis of Cdk4 in 3T3, Hela lysates using CDK4 antibody.




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