

CDK4 Antibody

Rabbit mAb Catalog # AP90836

Specification

CDK4 Antibody - Product Information

Application WB, ICC, IP
Primary Accession P11802
Reactivity Rat

Clonality Monoclonal

Other Names

Cyclin-dependent kinase 4; Cell division protein kinase 4; PSK-J3; PSKJ3; CDK4; Crk3; CMM 3;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 33730 Da

CDK4 Antibody - Additional Information

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

CDK4

Description Cyclin-dependent kinase activity is regulated by T-loop phosphorylation

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. The active complex of CDK4/cyclin D targets

the retinoblastoma protein for

phosphorylation, allowing the release of E2F transcription factors that activate

G1/S-phase gene expression.

Storage Condition and Buffer Rabbit IgG in phosphate buffered saline ,

pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid

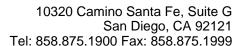
freeze / thaw cycle.

CDK4 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

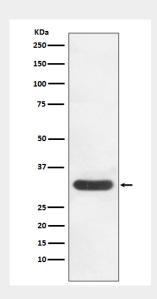
Cytoplasm. Nucleus. Nucleus membrane. Note=Cytoplasmic when non-complexed Forms a cyclin D-CDK4 complex in the cytoplasm as cells progress through G(1) phase. The complex accumulates on the nuclear membrane and enters the nucleus on transition from G(1) to S phase. Also present in nucleoli and heterochromatin lumps. Colocalizes with RB1 after release into the nucleus.

CDK4 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

CDK4 Antibody - Images



Western blot analysis of CDK4 expression in HeLa cell lysate.