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

# CDK4

Rabbit Monoclonal antibody(Mab)
Catalog # AD80542

## Product Information

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|---|---|
| **Application** | IHC-P |
| **Primary Accession** | P11802 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Monoclonal |
| **Clone Names** | 823I4B2 |
| **Calculated MW** | 33730 |

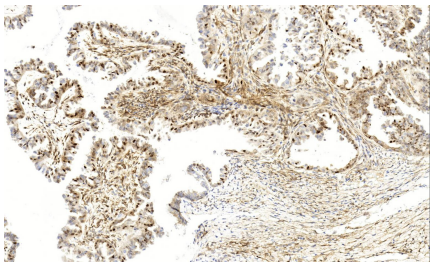
## Additional Information

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|---|---|
| **Gene ID** | 1019 |
| **Other Names** | Cyclin-dependent kinase 4, 2.7.11.22, Cell division protein kinase 4, PSK-J3, CDK4 |
| **Dilution** | IHC-P~~Ready-to-use |
| **Storage** | Maintain refrigerated at 2-8°C. |

## Protein Information

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|---|---|
| **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. |

## Images



Immunohistochemical analysis of formalin-fixed and paraffin-embedded human ovarian carcinoma tissue was performed with CDK4 primary antibody, followed by peroxidase-conjugated secondary antibody and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.