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

# KD-Validated Anti-Cdk4 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2305

## Product Information

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|---|---|
| **Application** | WB, FC, ICC |
| **Primary Accession** | P11802 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Names** | 23GB745 |
| **Calculated MW** | 33730 |
| **Gene Name** | CDK4 |
| **Aliases** | CDK4; Cyclin Dependent Kinase 4; PSK-J3; Cell Division Protein Kinase 4; Cyclin-Dependent Kinase 4; EC 2.7.11.22; EC 2.7.11; CMM3 |
| **Immunogen** | A synthesized peptide derived from human Cdk4 |

## 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 |

## 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. |

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