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KD-Validated Anti-Cyclin Dependent Kinase 4 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1782

Product Information

Application	WB, ICC
Primary Accession	P11802
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a kappa
Clone Names	24GB2800
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	Recombinant protein of human CDK4

Additional Information

Gene ID	1019
Other Names	Cyclin-dependent kinase 4, 2.7.11.22, Cell division protein kinase 4, PSK-J3, CDK4

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.

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