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Anti-Cdk4 Picoband Antibody

Catalog # ABO12222

Product Information

Application	WB, IHC-P
Primary Accession	P11802
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Cyclin-dependent kinase 4(CDK4) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1019
Other Names	Cyclin-dependent kinase 4, 2.7.11.22, Cell division protein kinase 4, PSK-J3, CDK4
Calculated MW	33730
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Cytoplasm. Nucleus. Membrane. 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.
Source	Eukaryota
Protein Name	Cyclin-dependent kinase 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human Cdk4 recombinant protein (Position: G201-E303). Human Cdk4 shares 94.2% amino acid (aa) sequence identity with both mouse and rat Cdk4.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.

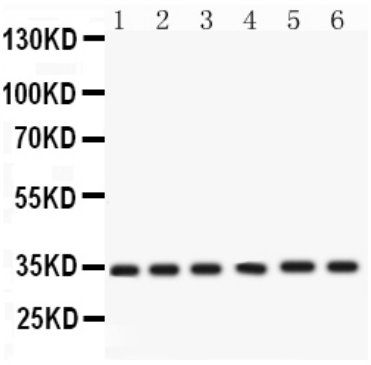
Protein Information

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

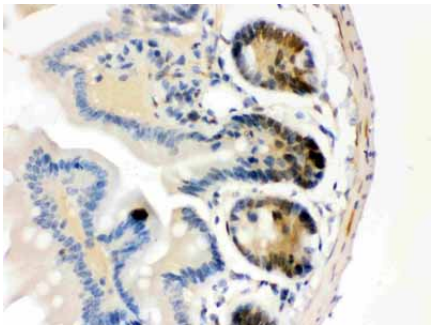
Cyclin-dependent kinase-4 (CDK4) is a protein-serine kinase involved in the cell cycle. Human cell division is regulated primarily at the G1-to-S or the G2-to-M boundaries within the cell cycle. The complexes formed by CDK4 and the D-type cyclins are involved in the control of cell proliferation during the G1 phase. CDK4 is inhibited by p16, also known as cyclin-dependent kinase inhibitor-2. CDK4 is mapped to 12q14. And CDK4 expression and activity are required for cytokine responsiveness in T cells.

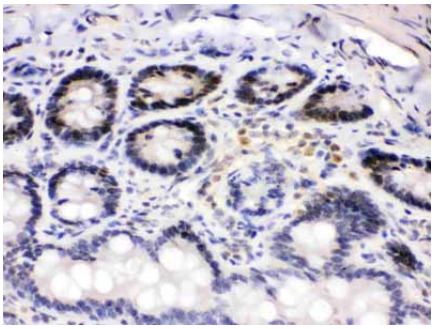
Images



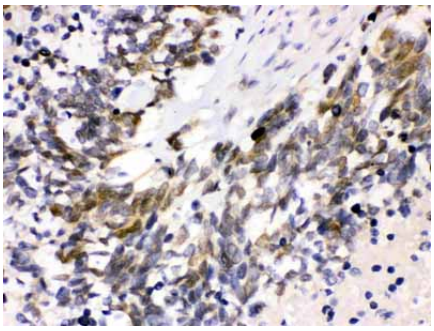
Anti- Cdk4 Picoband antibody, ABO12222, Western blottingAll lanes: Anti Cdk4 (ABO12222) at 0.5ug/mlLane 1: Rat Gaster Tissue Lysate at 50ugLane 2: Rat Thymus Tissue Lysate at 50ugLane 3: HELA Whole Cell Lysate at 40ugLane 4: A549 Whole Cell Lysate at 40ugLane 5: SKOV Whole Cell Lysate at 40ugLane 6: 22RV1 Whole Cell Lysate at 40ugPredicted bind size: 34KDObserved bind size: 34KD

Anti- Cdk4 Picoband antibody, ABO12222, IHC(P)IHC(P): Mouse Intestine Tissue





Anti- Cdk4 Picoband antibody, ABO12222, IHC(P)IHC(P): Rat Intestine Tissue



Anti- Cdk4 Picoband antibody, ABO12222, IHC(P)IHC(P): Human Lung Cancer Tissue

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