

Datasheet for ABIN3042691
anti-CDK4 antibody (C-Term)



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Overview

Quantity:	100 µg
Target:	CDK4
Binding Specificity:	AA 283-303, C-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CDK4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-Cyclin-dependent kinase 4 Cdk4 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Cdk4, different from the related rat sequence by one amino acid, and from the related human sequence by four amino acids.
Sequence:	RISAFRALQH SYLHKEESDA E
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Cyclin-dependent kinase 4 Cdk4 Antibody (ABIN3042691). Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong

Product Details

signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Purification: Immunogen affinity purified.

Target Details

Target: CDK4

Alternative Name: CDK4 ([CDK4 Products](#))

Background: Synonyms: Cyclin-dependent kinase 4,2.7.11.22,CRK3,Cell division protein kinase 4,PSK-J3,Cdk4,Crk3,
Tissue Specificity: Expressed (at protein level) in a wide range of tissues with highest levels in brain, spinal cord, testis, pancreas, heart, spleen and mammary glands. Moderate levels found in thymus, ovary and small intestine. Not detected in salivary gland, muscle or liver. Also expressed in cell lines of myeloid, fibroblast and epithelial origin. Not detected in most lymphoid cell lines. .
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. CDK4 expression and activity are required for cytokine responsiveness in T cells.
Sequence Similarities: Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. CDC2/CDKX subfamily.

Molecular Weight: 34 kDa

UniProt: [P30285](#)

Pathways: [Cell Division Cycle](#), [Mitotic G1-G1/S Phases](#), [Regulation of Cell Size](#)

Application Details

Application Notes: Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat
Immunocytochemistry/Immunofluorescence, 5 µg/mL, Human
Flow Cytometry (Fixed), 1-3 µg/1×10⁶ cells, Human
1. Demetrick, D. J., Zhang, H., Beach, D. H. : Chromosomal mapping of human CDK2, CDK4, and CDK5 cell cycle kinase genes. Cytogenet. Cell Genet. 66: 72-74, 1994. 2. Modiano, J. F., Mayor, J., Ball, C., Fuentes, M. K., Linthicum, D. S. : CDK4 expression and activity are required for

Application Details

cytokine responsiveness in T cells. J. Immun. 165: 6693-6702, 2000.e for human proliferating nuclear antigen/cyclin by in situ hybridization. Hum. Genet. 86: 84-86, 1990.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Thimerosal (Merthiolate) and Sodium azide: POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Expiry Date: 12 months

Publications

Product cited in: Ren, Huang, Xu, Yang, Yang, Hu: "Isoflavone lupiwighteone induces cytotoxic, apoptotic, and antiangiogenic activities in DU-145 prostate cancer cells." in: **Anti-cancer drugs**, Vol. 26, Issue 6, pp. 599-611, (2015) ([PubMed](#)).

Zhou, Lu, Liu, Guo, Liu, Zhou, Yang, Mi, Xu: "Platycodin D induces tumor growth arrest by activating FOXO3a expression in prostate cancer in vitro and in vivo." in: **Current cancer drug targets**, Vol. 14, Issue 9, pp. 860-71, (2015) ([PubMed](#)).

Zhang, Zhao, Huang, Meng, Bian, Li: "Melittin restores PTEN expression by down-regulating

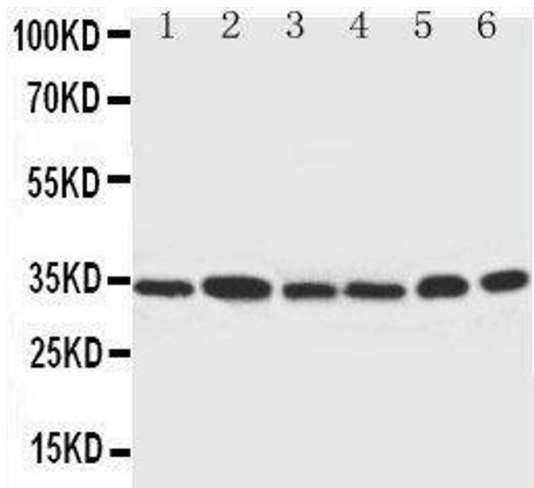
HDAC2 in human hepatocellular carcinoma HepG2 cells." in: **PLoS ONE**, Vol. 9, Issue 5, pp. e95520, (2014) ([PubMed](#)).

Wang, Huang, Han, Xue, Li, Liu, Shan, Wang, Li, Li: "The effects of artemisinin on the proliferation and apoptosis of vascular smooth muscle cells of rats." in: **Cell biochemistry and function**, Vol. 32, Issue 2, pp. 201-8, (2014) ([PubMed](#)).

Li, Xu, Chu, Gao, Wang, Nie, Yang, Lv: "Molecular mechanism of inhibitory effects of CD59 gene on atherosclerosis in ApoE (-/-) mice." in: **Immunology letters**, Vol. 156, Issue 1-2, pp. 68-81, (2013) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



Western Blotting

Image 1. Anti-Cdk4 antibody, Western blotting Lane 1: Rat Thymus Tissue Lysate Lane 2: HELA Cell Lysate Lane 3: MCF-7 Cell Lysate Lane 4: A549 Cell Lysate Lane 5: COLO320 Cell Lysate Lane 6: JURKAT Cell Lysate