

Rabbit anti-Human CDK2 Polyclonal Antibody | anti-CDK2 antibody

Anti-CDK2 Antibody, Rabbit Polyclonal

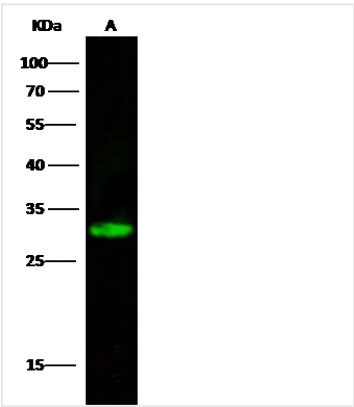
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255039	Rabbit	Human	Immunoprecipitation, ELISA, Western Blot

PRODUCT SYNONYMS

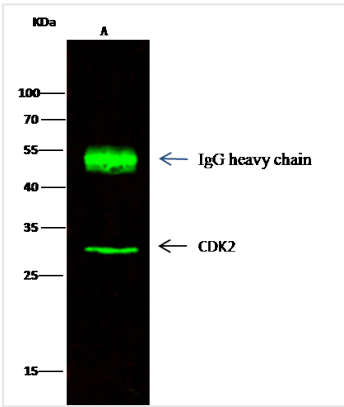
CDK2; Polyclonal Antibody; Anti-CDK2 Antibody; Rabbit Polyclonal; CDK2/p33 Antibody; Rabbit PAb; Antigen Affinity Purified; cyclin-dependent kinase 2; Anti-CDKN2 Antibody; Anti-p33(CDK2) Antibody; anti-CDK2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Human CDK2/p33
Purity/Purification	Protein A & Antigen Affinity
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-CDK2 antibody	IP (Immunoprecipitation), ELISA, WB (Western Blot)
Immunogen	Recombinant Human CDK2 protein
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with purified, recombinant Human CDK2 (rh CDK2). CDK2 specific IgG was purified by human CDK2 affinity chromatography.
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.



WB (Western Blot)
Anti-CDK2 rabbit polyclonal antibody at 1:500 dilution Lane A: K562 Whole Cell Lysate Lysates/proteins at 60 ug per lane. Secondary Goat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution. Developed using the Odyssey technique. Performed under reducing conditions. Predicted band size: 35 kDa Observed band size: 30 kDa



IP (Immunoprecipitation)
CDK2 was immunoprecipitated using: Lane A: 0.5 mg K562 Whole Cell Lysate 2 uL anti-CDK2 rabbit polyclonal antibody and 15 ul of 50 % Protein G agarose. Primary antibody: Anti-CDK2 rabbit polyclonal antibody, at 1:500 dilution Secondary antibody: Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilution Developed using the odssey technique. Performed under reducing conditions. Predicted band size: 34 kDa Observed band size: 34 kDa

ADDITIONAL INFORMATION

Related Product Information for anti-CDK2 antibody	CDK2 is a member of the Ser/Thr protein kinase family. This protein kinase is highly similar to the gene products of <i>S. cerevisiae</i> cdc28, and <i>S. pombe</i> cdc2. It is a catalytic subunit of the cyclin-dependent protein kinase complex, whose activity is restricted to the G1-S phase, and essential for cell cycle G1/S phase transition. Cdks (cyclin-dependent kinases) are heteromeric serine/threonine kinases that control progression through the cell cycle in concert with their regulatory subunits, the cyclins. Cdks are constitutively expressed and are regulated by several kinases and phosphatases, including Wee1, CDK-activating kinase and Cdc25 phosphatase. Although there are 12 different cdk genes, only 5 have been shown to directly drive the cell cycle (Cdk1, -2, -3, -4, and -6). Following extracellular mitogenic stimuli, cyclin D gene expression is upregulated. Cdk4 forms a complex with cyclin D and phosphorylates Rb protein, leading to liberation of the transcription factor E2F. E2F induces transcription of genes including cyclins A and E, DNA polymerase and thymidine kinase. Cdk4-cyclin E complexes form and initiate G1/S transition. Subsequently, Cdk1-cyclin B complexes form and induce G2/M phase transition. Cdk1-cyclin B activation induces the breakdown of the nuclear envelope and the initiation of mitosis. CDK2 associates with and regulated by the regulatory subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A) and p27Kip1 (CDKN1B). Its activity is also regulated by its protein phosphorylation. CDK2 is involved in the control of the cell cycle. It also interacts with cyclins A, B1, B3, D, or E. Activity of CDK2 is maximal during S phase and G2.
Product Categories/Family for anti-CDK2 antibody	p53 Pathway
References	Bao ZQ, et al. (2011) Briefly bound to activate: transient binding of a second catalytic magnesium activates the structure and dynamics of CDK2 kinase for catalysis. <i>Structure</i> . 19(5):675-90.Neganova I, et al. (2011) An important role for CDK2 in G1 to S checkpoint activation and DNA damage response in human embryonic stem cells. <i>Stem Cells</i> . 29(4):651-9.Li J, et al. (2011) Phosphorylation of MCM3 protein by cyclin E/cyclin-dependent kinase 2 (Cdk2) regulates its function in cell cycle. <i>J Biol Chem</i> . 286(46):39776-85.Buis J, et al. (2012) Mre11 regulates CtIP-dependent double-strand break repair by interaction with CDK2. <i>Nat Struct Mol Biol</i> . 19(2):246-52.

NCBI AND UNIPROT INFORMATION

NCBI GI #	16936528
NCBI GeneID	1017
NCBI Accession #	NP_001789.2
NCBI GenBank Nucleotide #	NM_001798.3
UniProt Accession #	P24941; O75100; A8K7C6
Molecular Weight	33,930 Da

NCBI Official Full Name	cyclin-dependent kinase 2 isoform 1
NCBI Official Synonym Full Names	cyclin-dependent kinase 2
NCBI Official Symbol	CDK2
NCBI Official Synonym Symbols	p33(CDK2)
NCBI Protein Information	cyclin-dependent kinase 2; p33 protein kinase; cell division kinase 2; cdc2-related protein kinase; cell division protein kinase 2
UniProt Protein Name	Cyclin-dependent kinase 2
UniProt Gene Name	CDK2
UniProt Synonym Gene Names	CDKN2
UniProt Entry Name	CDK2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/cdk2-antibody-immunoprecipitation-western-blot-elisa/255039>