

Rabbit Cdk2/Cdc2 Polyclonal Antibody | anti-Cdk2/Cdc2 antibody

Cdk2/Cdc2 Polyclonal Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA294455	Rabbit	Human, Mouse, Rat	Immunohistochemistry, Western Blot

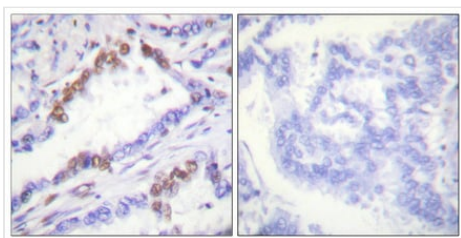
PRODUCT SYNONYMS

Cdk2/Cdc2; Polyclonal Antibody; Cdk2/Cdc2 Polyclonal Antibody; CDK2; CDKN2; Cyclin-dependent kinase 2; Cell division protein kinase 2; p33 protein kinase; anti-Cdk2/Cdc2 antibody

PRODUCT SPECIFICATIONS

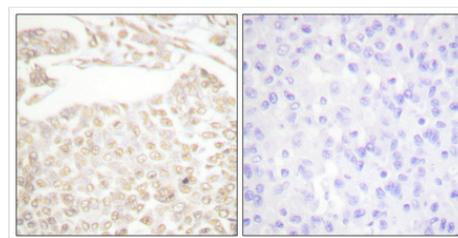
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Applicable Applications for anti-Cdk2/Cdc2 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 2 weeks. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.

IMAGES



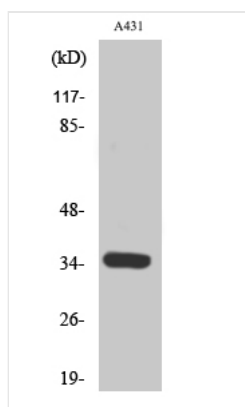
IHC (Immunohistochemistry)

Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000.
Not yet tested in other applications.



IHC (Immunohistochemistry)

Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000.
Not yet tested in other applications.



WB (Western Blot)

Dilution: Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/40000.
Not yet tested in other applications.

ADDITIONAL INFORMATION

Related Product Information for anti-Cdk2/Cdc2 antibody	Serine/threonine-protein kinase involved in the control of the cell cycle; essential for meiosis, but dispensable for mitosis. Phosphorylates CTNNB1, USP37, p53/TP53, NPM1, CDK7, RB1, BRCA2, MYC, NPAT, EZH2. Triggers duplication of centrosomes and DNA. Acts at the G1-S transition to promote the E2F transcriptional program and the initiation of DNA synthesis, and modulates G2 progression; controls the timing of entry into mitosis/meiosis by controlling the subsequent activation of cyclin B/CDK1 by phosphorylation, and coordinates the activation of cyclin B/CDK1 at the centrosome and in the nucleus. Crucial role in orchestrating a fine balance between cellular proliferation, cell death, and DNA repair in human embryonic stem cells (hESCs). Activity of CDK2 is maximal during S phase and G2; activated by interaction with cyclin E during the early stages of DNA synthesis to permit G1-S transition, and subsequently activated by cyclin A2 (cyclin A1 in germ cells) during the late stages of DNA replication to drive the transition from S phase to mitosis, the G2 phase. EZH2 phosphorylation promotes H3K27me3 maintenance and epigenetic gene silencing. Phosphorylates CABLES1 (By similarity). Cyclin E/CDK2 prevents oxidative stress-mediated Ras-induced senescence by phosphorylating MYC. Involved in G1-S phase DNA damage checkpoint that prevents cells with damaged DNA from initiating mitosis; regulates homologous recombination-dependent repair by phosphorylating BRCA2, this phosphorylation is low in S phase when recombination is active, but increases as cells progress towards mitosis. In response to DNA damage, double-strand break repair by homologous recombination a reduction of CDK2- mediated BRCA2 phosphorylation. Phosphorylation of RB1 disturbs its interaction with E2F1. NPM1 phosphorylation by cyclin E/CDK2 promotes its dissociates from unduplicated centrosomes, thus initiating centrosome duplication. Cyclin E/CDK2-mediated phosphorylation of NPAT at G1-S transition and until prophase stimulates the NPAT-mediated activation of histone gene transcription during S phase. Required for vitamin D-mediated growth inhibition by being itself inactivated. Involved in the nitric oxide- (NO) mediated signaling in a nitrosylation/activation-dependent manner. USP37 is activated by phosphorylation and thus triggers G1-S transition. CTNNB1 phosphorylation regulates insulin internalization. Phosphorylates FOXP3 and negatively regulates its transcriptional activity and protein stability (By similarity). Phosphorylates CDK2AP2 (PubMed:12944431).
---	--

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.