

Rabbit anti-Human CDK1/CDC2 Polyclonal Antibody | anti-CDK1/CDC2 antibody

Anti-CDK1/CDC2 Antibody, Rabbit Polyclonal

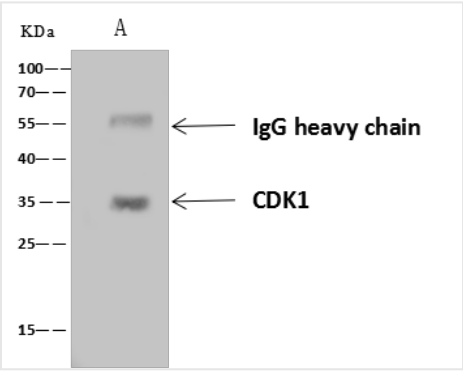
CATALOG # AAA258863	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunoprecipitation, Western Blot
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PRODUCT SYNONYMS

CDK1/CDC2; Polyclonal Antibody; Anti-CDK1/CDC2 Antibody; Rabbit Polyclonal; cyclin-dependent kinase 1; Anti-CDC2 Antibody; Anti-CDC28A Antibody; Anti-P34CDC2 Antibody; anti-CDK1/CDC2 antibody

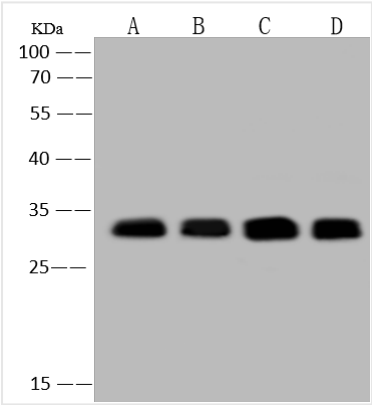
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Human CDK1/CDC2
Purity/Purification	Protein A & Antigen Affinity
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-CDK1/CDC2 antibody	IP (Immunoprecipitation), WB (Western Blot)
Immunogen	A synthetic peptide corresponding to the center region of the Human CDK1
Preparation	Produced in rabbits immunized with a synthetic peptide corresponding to the center region of the Human CDK1, and purified by antigen 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. Avoid repeated freeze-thaw cycles.



IP (Immunoprecipitation)

CDK1 was immunoprecipitated using: Lane A: 0.5 mg Jurkat Whole Cell Lysate 4 uL anti-CDK1 rabbit polyclonal antibody and 60 ug of Immomagnetic beads Protein A/G. Primary antibody: Anti-CDK1 rabbit polyclonal antibody, at 1:100 dilution. Secondary antibody: Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 34 kDa. Observed band size: 34 kDa.



WB (Western Blot)

Anti-CDK1 rabbit polyclonal antibody at 1:500 dilution. Lane A: HeLa Whole Cell Lysate. Lane B: 293T Whole Cell Lysate. Lane C: Jurkat Whole Cell Lysate. Lane D: K562 Whole Cell Lysate. Lysates/proteins at 30 ug per lane. Secondary: Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. Developed using the ECL technique. Performed under reducing conditions. Predicted band size: 34 kDa. Observed band size: 34 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-CDK1/CDC2 antibody	CDC2, also known as CDK1, contains 1 protein kinase domain and belongs to the protein kinase superfamily, CMGC Ser/Thr protein kinase family, CDC2/CDKX subfamily. CDC2 is a catalytic subunit of the highly conserved protein kinase complex known as M-phase promoting factor (MPF), which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Mitotic cyclins stably associate with CDC2 and function as regulatory subunits. The kinase activity of CDK1 is controlled by cyclin accumulation and destruction through the cell cycle. The phosphorylation and dephosphorylation of CDC2 also play important regulatory roles in cell cycle control. It is required in higher cells for entry into S-phase and mitosis. CDC2 also is a cyclin-dependent kinase which displays CTD kinase activity and is required for RNA splicing. It has CTD kinase activity by hyperphosphorylating the C-terminal heptapeptide repeat domain (CTD) of the largest RNA polymerase II subunit RPB1, thereby acting as a key regulator of transcription elongation. CDK1 is required for RNA splicing, possibly by phosphorylating SRSF1/SF2. It is involved in regulation of MAP kinase activity, possibly leading to affect the response to estrogen inhibitors.
References	Lee MG, et al. (1987) Complementation used to clone a human homologue of the fission yeast cell cycle control gene cdc2. Nature. 327(6117):31-5. Enserink JM, et al. (2010) An overview of Cdk1-controlled targets and processes. Cell Division. 5(11): 1-41. Ninomiya-Tsuji J, et al. (1991) Cloning of a human cDNA encoding a CDC2-related kinase by complementation of a budding yeast cdc28 mutation. Proc Natl Acad Sci. 88(20):9006-10. Zhan Q, et al. (1999) Association with Cdc2 and inhibition of Cdc2/Cyclin B1 kinase activity by the p53-regulated protein Gadd45. Oncogene. 18(18):2892-900. Jin S, et al. (2000) The GADD45 inhibition of Cdc2 kinase correlates with GADD45-mediated growth suppression. J Biol Chem. 275(22):16602-8.

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.