

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

Anti-CDK1 Antibody, Rabbit Polyclonal

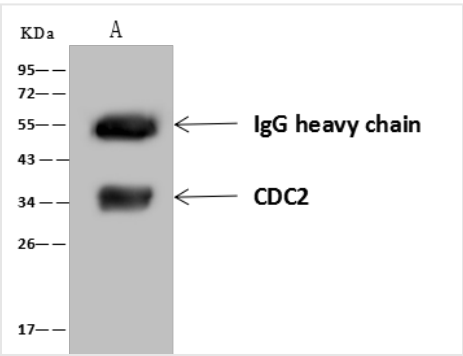
CATALOG # AAA257673	HOST Rabbit	REACTIVITY Human	APPLICATIONS Immunoprecipitation, Western Blot
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PRODUCT SYNONYMS

CDK1; Polyclonal Antibody; Anti-CDK1 Antibody; Rabbit Polyclonal; CDK1 Antibody; Rabbit PAb; Antigen Affinity Purified; Anti-CDC2 Antibody; Anti-CDC28A Antibody; Anti-P34CDC2 Antibody; cyclin-dependent kinase 1; anti-CDK1 antibody

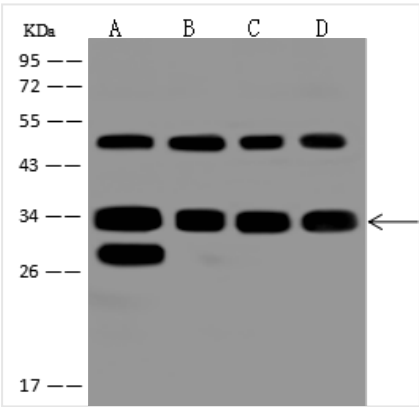
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Human CDK1
Purity/Purification	Protein A & Antigen Affinity
Form/Format	Liquid. PBS, pH7.0 with 0.03% Proclin300
Applicable Applications for anti-CDK1 antibody	IP (Immunoprecipitation), WB (Western Blot)
Immunogen	E Coli-derived Human CDK1 fragment
Conjugation	Unconjugated
Preparation	Produced in rabbits immunized with E Coli-derived Human CDK1 fragment, 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. This antibody is shipped as liquid solution at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.



IP (Immunoprecipitation)

CDC2 was immunoprecipitated using: Lane A: 0.5 mg THP1 Whole Cell Lysate 4 uL anti-CDC2 rabbit polyclonal antibody and 60 ug of Immunomagnetic beads Protein A/G. Primary antibody: Anti-CDC2 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/CDC2 rabbit polyclonal antibody at 1:500 dilution. Lane A: HL60 Whole Cell Lysate. Lane B: Hela Whole Cell Lysate. Lane C: 293T Whole Cell Lysate. Lane D: THP1 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. (We are unsure as to the identity of these extra bands.)

ADDITIONAL INFORMATION

Related Product Information for anti-CDK1 antibody	Background: 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.