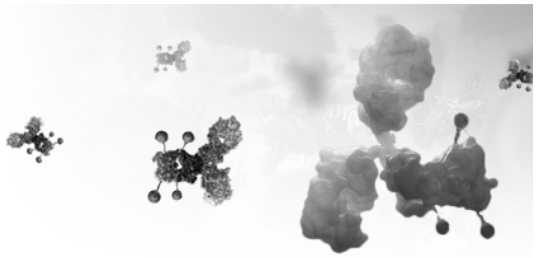

Anti-CDK1 polyclonal antibody (DPAB2681RH)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Rabbit polyclonal to human cell division control protein 2 homolog.
Antigen Description	Cyclin-dependent kinases (cdk) belong to a group of protein kinases originally discovered as being involved in the regulation of the cell cycle. Cdks are also involved in the regulation of transcription and mRNA processing. A Cdk is activated by association with a cyclin, forming a cyclin-dependent kinase complex. Cdk1, also known as cell division control protein 2 (cdc2), is one of the components of the maturation promoting factor (MPF) which is essential for G1/S and G2/M phase transitions of eukaryotic cell cycle. Cdk1, when bound to cyclin B, allows a dividing cell to enter into mitosis from G2 and permits the transition from G1 through S in conjunction with cyclin A and cyclin E. The Cdk1 protein is constantly present throughout the cell division cycle, but its activity is finely tuned by means of proteinprotein interactions and reversible phosphorylation. Cdk1 can also enhance cell migration. Increased levels of Cdk1 promote cell migration together with cyclin B2 and the actin-stabilizing protein caldesmon. Phosphorylation of caldesmon bound to actin results in the displacement of caldesmon from actin followed by the altered interaction of actin with myosin. These events contribute to increased cell migration.
Immunogen	Recombinant human protein purified from E.coli.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Conjugate	Unconjugated
Applications	WB, IP
Cellular Localization	Nucleus
Positive Control	K562 cells

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Format	HEPES with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol.
Size	100 µl
Preservative	0.03% Sodium Azide
Storage	Store for 1 year at -20 °C from date of shipment.

GENE INFORMATION

Gene Name	CDK1 cyclin-dependent kinase 1 [Homo sapiens]
Synonyms	CDK1; cyclin-dependent kinase 1; CDC2; CDC28A; P34CDC2; p34 protein kinase; cell cycle controller CDC2; cell division protein kinase 1; Cell division protein kinase 1; Cell division control protein 2 homolog; cell division control protein 2 homolog; cell division cycle 2, G1 to S and G2 to M; NP_001163877.1; EC 2.7.11.22; EC 2.7.11.23; NP_001163878.1; NP_001777.1; NP_203698.1; MGC111195; DKFZp686L20222; OTTHUMP00000019659; OTTHUMP00000019660; OTTHUMP00000223862
Entrez Gene ID	983
Protein Refseq	NP_001777
UniProt ID	B7Z3D6
Chromosome Location	10q21.1
Pathway	APC/C-mediated degradation of cell cycle proteins; APC/C:Cdc20 mediated degradation of Cyclin B; APC/C:Cdc20 mediated degradation of mitotic proteins; ARMS-mediated activation; Activated TLR4 signalling; Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins; Androgen Receptor Signaling Pathway; Axon guidance; Cell Cycle Checkpoints; Cell Cycle, Mitotic; Cell cycle; Centrosome maturation; Chk1/Chk2(Cds1) mediated inactivation of Cyclin B:Cdk1 complex; Cyclin A/B1 associated
Function	ATP binding; Hsp70 protein binding; RNA polymerase II carboxy-terminal domain kinase activity; cyclin binding; cyclin-dependent protein kinase activity; histone kinase activity; nucleotide binding; protein binding; protein kinase activity

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