AB-PK563

CDK1-pY19 Antibody

Phosphosite-specific polyclonal antibody for monitoring the phosphorylation of human protein-serine/threonine kinase CDK1 (CDC2)

Address: 8755 Ash Street, Suite 1
Vancouver, British Columbia,
Canada V6P 6T3

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Target Protein

Name Long:	Cyclin-dependent protein-serine kinase 1; Cell division control protein 2 homologue
Alias:	Cdc2; CDC28; CDC28A; CDC2A; Cell division control protein 2; Cell division cycle 2, G1 to S and G2 to M; Cyclin-dependent kinase 1; P34 protein kinase; Kinase Cdc2; MPF; DKFZp686L20222; MGC111195; ENSG00000170312
UniProt ID:	P06493
Sequence Predicted Mass (KDa):	34.095 (297 AA; P06493); 27.503 (240 AA; P06493-2)
Observed SDS-PAGE Mass (KDa):	30-35

Immunogen

Antibody Immunogen Source:	Human CDK1 (CDC2) sequence peptide Cat. No.: PE-04AJF99
Antibody Immunogen Sequence:	GVV(pY)KGR(bA)C (bA) = beta-alanine
Location in Target:	Corresponds to amino acid residues G16 to R22; In the protein kinase catalytic domain just after subdomain I
Peptide Type:	For phosphosite-specific recognition of target.
Target Phosphosite:	Tyr-19

Production

Antibody Host Species:	Rabbit
Antibody Type:	Polyclonal
Antibody Ig Isotype Clone Lot:	Immunoglobulin G
Production Method:	The immunizing peptide was produced by solid phase synthesis on a multipep peptide synthesizer and purified by reverse-phase hplc chromatography. Purity was assessed by analytical hplc and the amino acid sequence confirmed by mass spectrometry analysis. This peptide was coupled to KLH prior to immunization into rabbits. New Zealand White rabbits were subcutaneously injected with KLH-coupled immunizing peptide every 4 weeks for 4 months. The sera from each animal was applied onto an agarose column to which the immunogen peptide was thio-linked. Antibody was eluted from the column with 0.1 M glycine, pH 2.5. Subsequently, the antibody solution was neutralized to pH 7.0 with saturated Tris.This antibody was also subject to negative purification over phosphotyrosine-agarose.
Antibody Amount:	25 µg
Antibody Concentration:	1 mg/ml
Lot Number:	141107
Storage Buffer:	Phosphate buffered saline (PBS) pH7.4, 0.05% Thimerasol
Storage Conditions and Stability:	For long term storage, keep frozen at -40°C or lower. Stock solution can be kept at +4°C for more than 3 months. Avoid repeated freeze-thaw cycles.

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Applications

Product Use:	Western blotting | Antibody microarrays
Antibody Dilution Recommended:	2 µg/ml for immunoblotting
Antibody Species Reactivity:	Human, mouse, rat and many other vertebrates; Phosphosite is highly conserved in diverse species
Antibody Positive Controls:	Very strong immunoreactivity with immunogen peptide on dot blots.
Detection by Immunoblotting in Cell/Tissue Lysates:	Weak to strong immunoreactivity of a target-sized protein by Western blotting in sea star oocytes depending on the animal tested.
Overall Antibody Specificity:	High selectivity
Antibody Cross Reactivities:	Almost no significant cross-reactivities detected in A431 and HeLa cells, except for weak detection of ~52 and ~75 cross-reactive proteins, which are also strongly detected in sea star oocytes. sea star oocytes. Also immunoreacts with a ~150 KDa protein.