

Product datasheet for **AP02497PU-S**

CDK1 pTyr15 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western Blot: 1:500~1:1000
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized phosphopeptide derived from human CDC2 around the phosphorylation site of tyrosine 15 (G-T-YP-G-V).
Specificity:	CDC2 antibody detects endogenous levels of CDC2 only when phosphorylated at tyrosine 15.
Formulation:	BPS(without Mg ²⁺ and Ca ²⁺), pH 7.4 containing 150mM NaCl, 0.02% sodium azide and 50% glycerol State: Aff - Purified State: Liquid purified IgG
Concentration:	lot specific
Purification:	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Conjugation:	Unconjugated
Storage:	Store the antibody at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	cyclin-dependent kinase 1
Database Link:	Entrez Gene 983 Human P06493



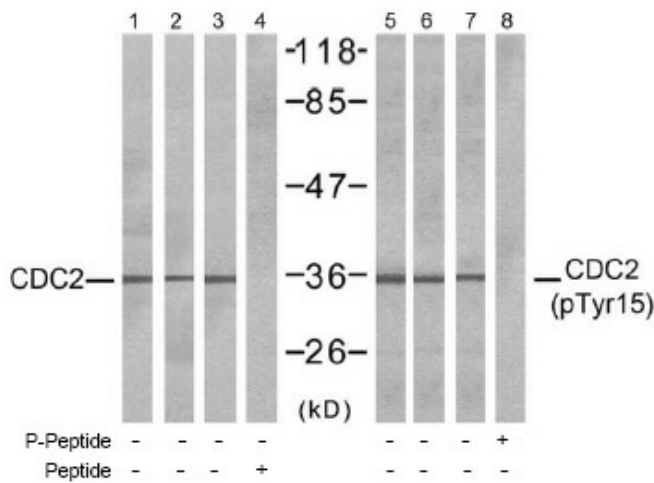
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Background:

The cell division control protein *cdc2*, also known as cyclin dependent kinase 1 (Cdk1) or p34/cdk1, plays a key role in the control of the eukaryotic cell cycle, where it is required for entry into S phase and mitosis. Cdc2 exists as a complex with both cyclin A and cyclin B. The best characterized of these associations is the Cdc2 p34 cyclin B complex, which is required for the G2 to M phase transition. Activation of Cdc2 is controlled at several steps including cyclin binding and phosphorylation of threonine 161. However, the critical regulatory step in activating *cdc2* during progression into mitosis appears to be dephosphorylation of Tyr15 and Tyr14. Phosphorylation at Tyr15 and inhibition of Cdc2 is carried out by WEE1 and MIK protein kinases while Tyr15 dephosphorylation and activation of Cdc2 is carried out by the *cdc25* phosphatase. The isoform CDC2deltaT is found in breast cancer tissues. Furthermore, *cdc2/Cdk1* is a key mediator of neuronal cell death in brain development and degeneration.

Synonyms:

CDK1, CDC2, CDC28A, CDKN1, P34CDC2, p34 protein kinase

Product images:


Western blot analysis of extracts from COLO (Lane 1, 5) and HepG2 (Lane 2, 6) and K562 (Lane 3, 4, 7, 8) cells, using CDC2 antibody (Lane 1, 2, 3 and 4) and CDC2 (pTyr15) antibody (Lane 5, 6, 7 and 8).