

Product datasheet for R1002

CDK1 (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, IP, WB
Recommended Dilution:	ELISA: 1:500 to 1:2000. Immunoprecipitation. Immunohistochemistry on paraffin sections: 1:200 to 1:1000. Western Blot: 1:500 to 1:1000.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	cdc2 peptide corresponding to the C-terminus of the human protein conjugated to Keyhole Limpet Hemocyanin (KLH).
Specificity:	This product was prepared from monospecific antiserum by delipidation and defibrination. Antiserum will specifically react with a 34 kDa cdc2 protein. No reaction was observed against other related cyclin dependent kinases. Cross reactivity with cdc2 from other species may also occur.
Formulation:	State: Serum State: Liquid purified Ig containing 0.01% Sodium Azide
Concentration:	lot specific
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