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Product Information

Anti-phospho-Cdc2 (Cdk1) (pTyr^{15})
produced in rabbit, affinity isolated antibody

Catalog Number **C0228**

Product Description

Anti-phospho-Cdc2 (Cdk1) (pTyr^{15}), also known as phospho-Cdk1 (phosphotyrosine 15), is produced in rabbit using as immunogen a synthetic phospho-Tyr^{15} peptide corresponding to Tyr^{15} of human Cdc2, conjugated to KLH. The antibody is affinity-purified using protein A and peptide affinity chromatography.

Anti-phospho-Cdc2 **(Cdk1)** (pTyr^{15}) detects Cdc2 and Cdk2 only when catalytically inactivated by phosphorylation at Tyr^{15}. It does not react with non-phosphorylated Cdc2, Cdk4, Cdk6, or Cdk7. The antibody reacts with human, mouse, and rat phosphorylated Cdk2 and may be used for immunoblotting (~34 kDa) and immunoprecipitation.

Entry of all eukarotic cells into M-phase of the cell cycle is regulated by activation of Cdc2 kinase. Activation of Cdc2 is controlled at several steps including cyclin binding and phosphorylation of Thr^{161}.[1-4] However, the critical regulatory step in activating Cdc2 during progression into mitosis appears to be dephosphorylation of Tyr^{15} and Tyr^{14}.[3, 5] Phosphorylation at Tyr^{15} and inhibition of Cdc2 is carried out by WEE1 and MIK protein kinases while Tyr^{15} dephosphorylation and activation of Cdc2 is carried out by the Cdc25 phosphatase.[3,4,6]

Reagent

Supplied as a solution in 10 mM sodium HEPES, pH 7.5, containing 150 mM sodium chloride, 100 µg/mL bovine serum albumin, and 50% glycerol.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working antibody dilution of approximately 1:1,000 is recommended [7,8,9] using an extract from hydroxyurea or nocodizate treated Saos cells and chemiluminescent detection.

Immunoprecipitation: a working antibody dilution of 1:100 is recommended.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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