**BACKGROUND**

Cdc2, an evolutionarily conserved serine/threonine-specific protein kinase, is essential in the cell cycle transition from G2 to M phase. Cdc2 is regulated by association with B-type cyclins and by reversible phosphorylation. Cyclin B binding facilitates the phosphorylation of Cdc2 p34 on three regulatory sites: Threonine 14, Tyrosine 15 and Threonine 161. In higher eukaryotes, Cdc2 is negatively regulated by phosphorylation of two residues located in the ATP-binding site, Thr 14 and Tyr 15. Cdc2 is positively regulated by the cyclin-dependent phosphorylation of Thr 161. Both phosphorylation and dephosphorylation at Thr 161 are required for progression through the cell cycle.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CDC2 (human) mapping to 10q21.2; Cdc2a (mouse) mapping to 10 B5.3.

**SOURCE**

p-Cdc2 p34 (pY15.44) is a mouse monoclonal antibody raised against a short amino acid sequence containing phosphorylated Tyr 15 of Cdc2 p34 of human origin.

**PRODUCT**

Each vial contains 50 µg IgG1 in 500 µl PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No SDS required.

**APPLICATIONS**

p-Cdc2 p34 (pY15.44) is recommended for detection of Tyr 15 phosphorylated Cdc2 p34 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).


Molecular Weight of p-Cdc2 p34: 34 kDa.


**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures. Not for resale.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.