Cdc2 p34 (Y100.4): sc-53217

**BACKGROUND**

In vertebrates, as in yeast, multiple cyclins have been identified, including a total of eight such regulatory proteins in mammals. In contrast to the situation in yeast, the Cdc2 p34 kinase is not the only catalytic subunit identified in vertebrates that can interact with cyclins. While Cdc2 p34 is essential for the G2 to M transition in vertebrate cells, a second Cdc2-related kinase has also been implicated in cell cycle control. This protein, designated cyclin-dependent kinase 2 (Cdk2) p33, also binds to cyclins and its kinase activity is temporally regulated during the cell cycle. Several additional Cdc2 p34-related cyclin-dependent kinases have been identified. These include Cdk3-Cdk8, PCTAIRE-1–3 and KKiALRE.

**CHROMOSOMAL LOCATION**

Genetic locus: CDK1 (human) mapping to 10q21.2; Cdk1 (mouse) mapping to 10 B5.3.

**SOURCE**

Cdc2 p34 (Y100.4) is a mouse monoclonal antibody raised against peptide spanning the C-terminal 14 residues (AKRALQONYLRFH) of Cdc2 of *S. pombe*.

**PRODUCT**

Each vial contains 200 µg IgG kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Cdc2 p34 (Y100.4) is recommended for detection of Cdc2 p34 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].


Molecular Weight of Cdc2 p34: 34 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or PC-3 cell lysate: sc-2220.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG Kappa Light Chain in 1.0 ml of 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 MSDS required.

**RESEARCH USE**

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

**DATA**

![Cdc2 p34 (Y100.4) sc-53217 Western blot analysis of Cdc2 p34 expression in HeLa (A), K-562 (B), PC-3 (C), F9 (D), Neuro-2A (E) and CHO (F) whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


**CONJUGATES**

See Cdc2 p34 (17): sc-54 for Cdc2 p34 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.