SANTA CRUZ BIOTECHNOLOGY, INC.

Cdc34B (H-51): sc-134628

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The eukaryotic cell division cycle consists of a number of gene-controlled sequences that involve cyclin dependent kinases (Cdks) and cell division control (Cdc) proteins. Cdc34B, also known as UBE2R2 (ubiquitin-conjugating enzyme E2 R2) or UBC3B, is a 238 amino acid member of the E2 ubiquitin-conjugating enzyme family. Similar to Cdc34, Cdc34B functions to catalytically attach ubiquitin to various proteins, such as β-TrCP (an F-box protein that mediates β-catenin degradation), via an ATP-dependent reaction that yields AMP, a diphosphate and a ubiquitin-tagged protein. Cdc34B can be phosphorylated by the protein kinase CK2 (casein kinase II), thereby allowing Cdc34B to regulate β-TrCP substrate recognition and, ultimately, enhance β-catenin degradation. Due to its ability to control β-TrCP activity, Cdc34B is thought to play a key role in cell cycle progression.

REFERENCES

1. Palmer, R.E., et al. 1990. Mitotic transmission of artificial chromosomes in Cdc mutants of the yeast, Saccharomyces cerevisiae. Genetics 125: 763-774.
2. Gautier, J., et al. 1991. Cdc25 is a specific tyrosine phosphatase that directly activates Cdc2 p34. Cell 67: 197-211.

CHROMOSOMAL LOCATION

Genetic locus: UBE2R2 (human) mapping to 9p13.3; Ube2r2 (mouse) mapping to 4 A5.

SOURCE

Cdc34B (H-51) is a rabbit polyclonal antibody raised against amino acids 188-238 mapping at the C-terminus of Cdc34B of human origin.

PRODUCT

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

APPLICATIONS

Cdc34B (H-51) is recommended for detection of Cdc34B 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cdc34B (H-51) is also recommended for detection of Cdc34B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Cdc34B siRNA (h): sc-105193, Cdc34B siRNA (m): sc-142209, Cdc34B shRNA Plasmid (h): sc-105193-SH, Cdc34B shRNA Plasmid (m): sc-142209-SH, Cdc34B shRNA (h) Lentiviral Particles: sc-105193-V and Cdc34B shRNA (m) Lentiviral Particles: sc-142209-V.

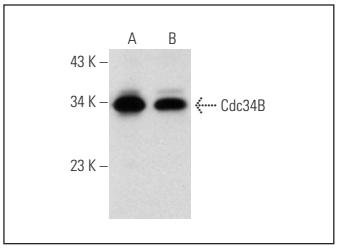
Molecular Weight of Cdc34B: 27 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, C6 whole cell lysate: sc-364373 or OV-90 whole cell lysate: sc-364191.

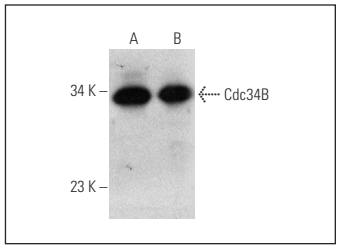
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Cdc34B (H-51): sc-134628. Western blot analysis of Cdc34B expression in Jurkat (**A**) and OV-90 (**B**) whole cell lysates.



Cdc34B (H-51): sc-134628. Western blot analysis of Cdc34B expression in Jurkat (**A**) and C6 (**B**) whole cell lysates.

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.

PROTOCOLS

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

MONOS Satisfaction Guaranteed

Try **Cdc34B (E-6): sc-376097** or **Cdc34B (C-4): sc-376427**, our highly recommended monoclonal alternatives to Cdc34B (H-51).