SANTA CRUZ BIOTECHNOLOGY, INC.

# Cdc34B (C-4): sc-376427

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


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## CHROMOSOMAL LOCATION

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

## SOURCE

Cdc34B (C-4) is a mouse monoclonal antibody raised against amino acids 188-238 mapping at the C-terminus of Cdc34B of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Cdc34B (C-4) is recommended for detection of Cdc34B of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

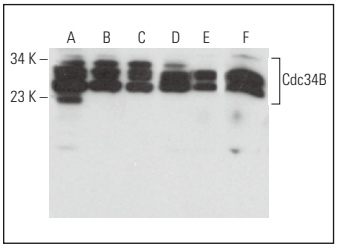
Molecular Weight of Cdc34B: 27 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

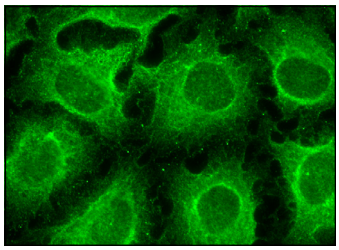
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA




Cdc34B (C-4): sc-376427. Western blot analysis of Cdc34B expression in Jurkat (**A**), IMR-32 (**B**), HeLa (**C**) and Neuro-2A (**D**) whole cell lysates and mouse brain (**E**) and rat brain (**F**) tissue extracts.



Cdc34B (C-4): sc-376427. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## 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.