SANTA CRUZ BIOTECHNOLOGY, INC.

Cdc14b Phosphatase (H-64): sc-292139



BACKGROUND

Cdc14b Phosphatase, also known as CDC14 cell division cycle 14 homolog B, is a 498 amino acid protein belonging to the protein-tyrosine phosphatase family. Cdc14b Phosphatase is composed of two structurally identical A and B domains that form a dual specificity protein phosphatase fold, which preferentially dephosphorylates proteins modified by proline-directed kinases. Cdc14b Phosphatase is highly similar to Saccharomyces cerevisiae Cdc14, a protein involved in cell cycle control. Localized to the nucleus, Cdc14b Phosphatase is expressed as four isoforms produced by alternative splicing.

REFERENCES

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- 3. Bose, S., et al. 2006. The elusive multiple self-healing squamous epithelioma (MSSE) gene: further mapping, analysis of candidates, and loss of heterozygosity. Oncogene 25: 806-812.
- 4. Krasinska, L., et al. 2007. Regulation of multiple cell cycle events by Cdc14 homologues in vertebrates. Exp. Cell Res. 313: 1225-1239.
- 5. Bassermann, F., et al. 2008. The Cdc14b-Cdh1-Plk1 axis controls the G₂ DNA-damage-response checkpoint. Cell 134: 256-267.
- 6. Berdougo, E., et al. 2008. The nucleolar phosphatase Cdc14b is dispensable for chromosome segregation and mitotic exit in human cells. Cell Cycle 7: 1184-1190.
- 7. Wu, J., et al. 2008. Cdc14b depletion leads to centriole amplification, and its overexpression prevents unscheduled centriole duplication. J. Cell Biol. 181: 475-483.
- 8. Rosso, L., et al. 2008. Birth and rapid subcellular adaptation of a hominoidspecific CDC14 protein. PLoS Biol. 6: e140.

CHROMOSOMAL LOCATION

Genetic locus: CDC14B (human) mapping to 9q22.33; Cdc14b (mouse) mapping to 13 B3.

SOURCE

Cdc14b Phosphatase (H-64) is a rabbit polyclonal antibody raised against amino acids 208-271 mapping within an internal region of Cdc14b Phosphatase of human origin.

PRODUCT

Each vial contains 200 µg lgG 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.

APPLICATIONS

Cdc14b Phosphatase (H-64) is recommended for detection of Cdc14b Phosphatase 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).

Cdc14b Phosphatase (H-64) is also recommended for detection of Cdc14b Phosphatase in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Cdc14b Phosphatase siRNA (h): sc-72833, Cdc14b Phosphatase siRNA (m): sc-72834, Cdc14b Phosphatase shRNA Plasmid (h): sc-72833-SH, Cdc14b Phosphatase shRNA Plasmid (m): sc-72834-SH, Cdc14b Phosphatase shRNA (h) Lentiviral Particles: sc-72833-V and Cdc14b Phosphatase shRNA (m) Lentiviral Particles: sc-72834-V.

Molecular Weight of Cdc14b Phosphatase: 62 kDa.

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 antirabbit 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.

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 Satisfation Guaranteed

Try Cdc14b Phosphatase (G-8): sc-374572 or Cdc14b Phosphatase (B-2): sc-376461, our highly recommended monoclonal alternatives to Cdc14b Phosphatase (H-64).