

Cdc14b Phosphatase (B-2): sc-376461

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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- 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.
- Krasinska, L., et al. 2007. Regulation of multiple cell cycle events by Cdc14 homologues in vertebrates. *Exp. Cell Res.* 313: 1225-1239.
- Bassermann, F., et al. 2008. The Cdc14B-Cdh1-Plk1 axis controls the G₂ DNA-damage-response checkpoint. *Cell* 134: 256-267.
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- Wu, J., et al. 2008. Cdc14B depletion leads to centriole amplification, and its overexpression prevents unscheduled centriole duplication. *J. Cell Biol.* 181: 475-483.
- Rosso, L., et al. 2008. Birth and rapid subcellular adaptation of a hominoid-specific CDC14 protein. *PLoS Biol.* 6: e140.

CHROMOSOMAL LOCATION

Genetic locus: CDC14B (human) mapping to 9q22.32; Cdc14b (mouse) mapping to 13 B3.

SOURCE

Cdc14b Phosphatase (B-2) is a mouse monoclonal antibody raised against amino acids 208-271 mapping within an internal region of Cdc14b Phosphatase of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ 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.

APPLICATIONS

Cdc14b Phosphatase (B-2) is recommended for detection of Cdc14b Phosphatase 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 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.

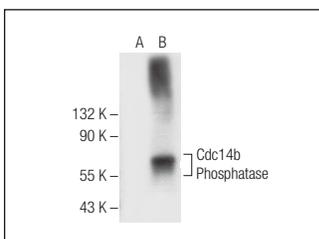
Molecular Weight of Cdc14b Phosphatase: 62 kDa.

Positive Controls: Cdc14b Phosphatase (h): 293T Lysate: sc-174435.

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



Cdc14b Phosphatase (B-2): sc-376461. Western blot analysis of Cdc14b Phosphatase expression in non-transfected: sc-117752 (A) and human Cdc14b Phosphatase transfected: sc-174435 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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