

PRP4 kinase (H-100): sc-68440

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. PRP4 kinase, also known as PRPF4B, PRP4H or PRP4K, is a 1,007 amino acid nuclear protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Expressed ubiquitously, PRP4 kinase functions to catalyze the ATP-dependent phosphorylation of target proteins and is thought to play a role in pre-mRNA splicing, possibly participating in the spliceosome C complex. Human PRP4 kinase shares 98% sequence identity with its mouse counterpart, suggesting a conserved role between species.

REFERENCES

- Gross, T., et al. 1997. Functional analysis of the fission yeast Prp4 protein kinase involved in pre-mRNA splicing and isolation of a putative mammalian homologue. *Nucleic Acids Res.* 25: 1028-1035.
- Huang, Y., et al. 2000. Characterization of hPRP4 kinase activation: potential role in signaling. *Biochem. Biophys. Res. Commun.* 271: 456-463.
- Kojima, T., et al. 2001. Cloning of human PRP4 reveals interaction with CLK1. *J. Biol. Chem.* 276: 32247-32256.
- Dellaire, G., et al. 2002. Mammalian PRP4 kinase copurifies and interacts with components of both the U5 snRNP and the N-CoR deacetylase complexes. *Mol. Cell. Biol.* 22: 5141-5156.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602338. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: PRPF4B (human) mapping to 6p25.2; Prpf4b (mouse) mapping to 13 A3.3.

SOURCE

PRP4 kinase (H-100) is a rabbit polyclonal antibody raised against amino acids 261-360 mapping near the N-terminus of PRP4 kinase 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-68440 X, 200 µg/0.1 ml.

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.

APPLICATIONS

PRP4 kinase (H-100) is recommended for detection of PRP4 kinase 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).

PRP4 kinase (H-100) is also recommended for detection of PRP4 kinase in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PRP4 kinase siRNA (h): sc-76257, PRP4 kinase siRNA (m): sc-76258, PRP4 kinase shRNA Plasmid (h): sc-76257-SH, PRP4 kinase shRNA Plasmid (m): sc-76258-SH, PRP4 kinase shRNA (h) Lentiviral Particles: sc-76257-V and PRP4 kinase shRNA (m) Lentiviral Particles: sc-76258-V.

PRP4 kinase (H-100) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

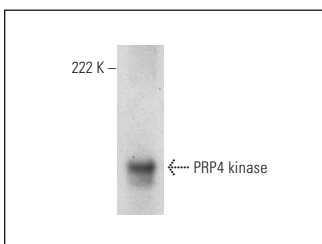
Molecular Weight of PRP4 kinase: 152 kDa.

Positive Controls: mouse cerebellum extract: sc-2403 or Jurkat whole cell lysate: sc-2204.

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



PRP4 kinase (H-100): sc-68440. Western blot analysis of PRP4 kinase expression in mouse cerebellum tissue extract.

PROTOCOLS

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