SANTA CRUZ BIOTECHNOLOGY, INC.

PRP8 (F-6): sc-55534

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PRP8, also designated pre-mRNA-processing-splicing factor 8, is a highly conserved nuclear protein and a central component of the catalytic core of the spliceosome, where it may be involved in various molecular rearrangements. PRP8, which is widely expressed, plays a role in transesterification reactions that regulate splicesome-induced pre-mRNA splicing. Specifically, PRP8 interacts with the GU dinucleotide at the 5' splice site (5'SS) and forms a specific UV-inducible cross-link. It also interacts functionally with the 3'SS, affecting the efficiency of the second catalytic step. PRP8 may play a role in the first transesterification step, as PRP8 mutations that prohibit negative regulation of PRP28 or PRP44/Brr2 subsequently block U4 activation. In addition, PRP8 interacts with a conserved region of U6 that is instrumental in the formation of the catalytic core of the spliceosome.

CHROMOSOMAL LOCATION

Genetic locus: PRPF8 (human) mapping to 17p13.3; Prpf8 (mouse) mapping to 11 B5.

SOURCE

PRP8 (F-6) is a mouse monoclonal antibody raised against amino acids 2036-2335 mapping at the C-terminus of PRP8 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.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

PRP8 (F-6) is recommended for detection of PRP8 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range), 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PRP8 (F-6) is also recommended for detection of PRP8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PRP8 siRNA (h): sc-38209, PRP8 siRNA (m): sc-38210, PRP8 shRNA Plasmid (h): sc-38209-SH, PRP8 shRNA Plasmid (m): sc-38210-SH, PRP8 shRNA (h) Lentiviral Particles: sc-38209-V and PRP8 shRNA (m) Lentiviral Particles: sc-38210-V.

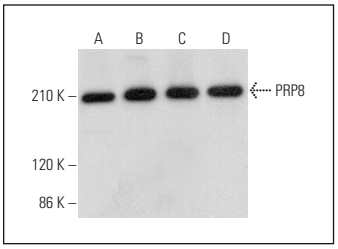
Molecular Weight of PRP8: 220 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, WEHI-231 whole cell lysate: sc-2213 or RAW 264.7 whole cell lysate: sc-2211.

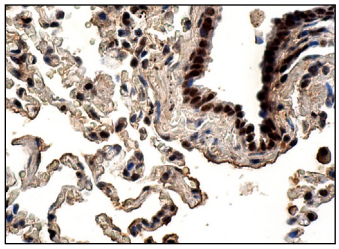
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PRP8 (F-6): sc-55534. Western blot analysis of PRP8 expression in HeLa (**A**), WEHI-231 (**B**), RAW 264.7 (**C**) and PC-12 (**D**) whole cell lysates.



PRP8 (F-6): sc-55534. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear staining of pneumocytes, macrophages and respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Wheway, G., et al. 2015. An siRNA-based functional genomics screen for the identification of regulators of ciliogenesis and ciliopathy genes. Nat. Cell Biol. 17: 1074-1087.
2. Hubé, F., et al. 2017. Short intron-derived ncRNAs. Nucleic Acids Res. 45: 4768-4781.
3. Arzalluz-Luque, Á., et al. 2021. Mutant PRPF8 causes widespread splicing changes in spliceosome components in retinitis pigmentosa patient iPSC-derived RPE cells. Front. Neurosci. 15: 636969.

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.