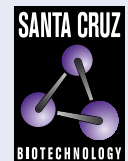


## PRP8 (E-5): sc-55533



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 spliceosome-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 (E-5) 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<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PRP8 (E-5) is available conjugated to agarose (sc-55533 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-55533 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-55533 PE), fluorescein (sc-55533 FITC), Alexa Fluor® 488 (sc-55533 AF488), Alexa Fluor® 546 (sc-55533 AF546), Alexa Fluor® 594 (sc-55533 AF594) or Alexa Fluor® 647 (sc-55533 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-55533 AF680) or Alexa Fluor® 790 (sc-55533 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

PRP8 (E-5) is recommended for detection of PRP8 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), 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).

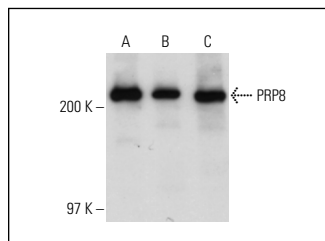
Suitable for use as control antibody for PRP8 siRNA (h): sc-38209, PRP8 siRNA (m): sc-38210, PRP8 shRNA Plasmid (h): sc-38209-SH, PRP8 shRNA Plasmid (m): sc-38210-SH, PRP8 shRNA (h) Lentiviral Particles: sc-38209-V and PRP8 shRNA (m) Lentiviral Particles: sc-38210-V.

Molecular Weight of PRP8: 220 kDa.

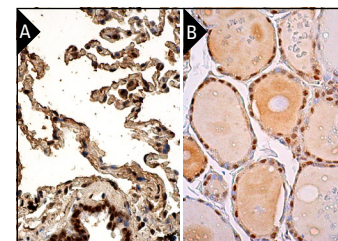
Positive Controls: Y79 nuclear extract: sc-2126, CTLL-2 cell lysate: sc-2242 or KNRK whole cell lysate: sc-2214.

**STORAGE**

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

**DATA**

PRP8 (E-5): sc-55533. Western blot analysis of PRP8 expression in Y79 nuclear extract (A) and CTLL-2 (B) and KNRK (C) whole cell lysates.



PRP8 (E-5): sc-55533. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear staining of pneumocytes, macrophages and respiratory epithelial cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear staining of glandular cells (B).

**SELECT PRODUCT CITATIONS**

- Shao, C., et al. 2009. Shotgun proteomic analysis of hibernating arctic ground squirrels. *Mol. Cell. Proteomics* 9: 313-326.
- Savage, K.I., et al. 2014. Identification of a BRCA1-mRNA splicing complex required for efficient DNA repair and maintenance of genomic stability. *Mol. Cell* 54: 445-459.
- Guo, Y.E., et al. 2019. Pol II phosphorylation regulates a switch between transcriptional and splicing condensates. *Nature* 572: 543-548.
- Klimešová, K., et al. 2021. TSSC4 is a component of U5 snRNP that promotes tri-snRNP formation. *Nat. Commun.* 12: 3646.
- Yano, K., et al. 2021. PRPF19 regulates p53-dependent cellular senescence by modulating alternative splicing of MDM4 mRNA. *J. Biol. Chem.* 297: 100882.
- Obuca, M., et al. 2022. Retinitis pigmentosa-linked mutation in DHX38 modulates its splicing activity. *PLoS ONE* 17: e0265742.
- Pappas, G., et al. 2023. MDC1 maintains active elongation complexes of RNA polymerase II. *Cell Rep.* 42: 111979.
- Klimešová, K., et al. 2023. SART3 associates with a post-splicing complex. *J. Cell Sci.* 136: jcs260380.

**RESEARCH USE**

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

**PROTOCOLS**

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.