

PRP8 (2834C1a): sc-81362

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.

REFERENCES

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2. Collins, C.A. and Guthrie, C. 1999. Allele-specific genetic interactions between PRP8 and RNA active site residues suggest a function for PRP8 at the catalytic core of the spliceosome. Genes Dev. 13: 1970-1982.
3. Siatecka, M., Reyes, J.L. and Konarska, M.M. 1999. Functional interactions of PRP8 with both splice sites at the spliceosomal catalytic center. Genes Dev. 13: 1983-1993.
4. Vidal, V.P., Verdona, L., Mayes, A.E. and Beggs, J.D. 1999. Characterization of U6 snRNA-protein interactions. RNA 5: 1470-1481.
5. Grainger, R.J. and Beggs, J.D. 2005. PRP8 protein: at the heart of the spliceosome. RNA 11: 533-557.
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CHROMOSOMAL LOCATION

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

SOURCE

PRP8 (2834C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of PRP8 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% BSA.

STORAGE

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

APPLICATIONS

PRP8 (2834C1a) is recommended for detection of PRP8 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)] and flow cytometry (1 µg per 1 x 10⁶ cells).

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.

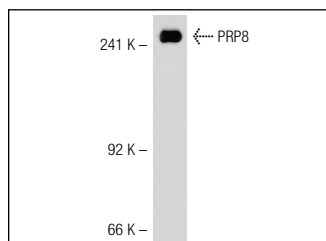
Molecular Weight of PRP8: 220 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, Jurkat nuclear extract: sc-2132 or HeLa nuclear extract: sc-2120.

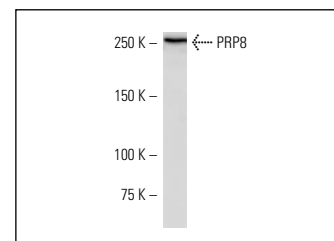
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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).

DATA



PRP8 (2834C1a): sc-81362. Western blot analysis of PRP8 expression in K-562 nuclear extract.



PRP8 (2834C1a): sc-81362. Western Blot analysis of PRP8 expression in HeLa whole cell lysate.

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.