SANTA CRUZ BIOTECHNOLOGY, INC.

SRm300 (C-9): sc-390315

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The SRm160/300 splicing coactivator, which consists of the serine/arginine (SR)-related nuclear matrix protein and a nuclear matrix antigen, functions in splicing by promoting critical interactions between splicing factors bound to pre-mRNA. This splicing pathway involves five core small nuclear ribonucleoprotein particles (snRNPs) and the SR family proteins, which coordinately bind to pre-mRNA slicing enhancer elements, are required for accurate splice site recognition, and regulate alterative splicing patterns. The recognized splicing enhancer elements, known also as exonic enhancer splicing sequences, are short RNA sequences that are capable of activating weak splice sites in adjacent introns and contain specific binding sites for the serine/arginine (SR)-rich splicing factors. SRm160 and 300 antigens contain domains rich in SR motifs, but are distinctly different from the SR factors as they lack an RNA recognition motif and cannot directly induce RNA splicing. These proteins rather function as coactivators that stabilize the splicing complex and mediate the U1 snRNP-splicing pathway.

REFERENCES

1. Fu, X.D. 1993. Specific commitment of different pre-mRNAs to splicing by single SR proteins. Nature 365: 82-85.
2. Badolato, J., et al. 1995. Identification and characterization of a novel human RNA-binding protein. Gene 166: 323-327.
3. Blencowe, B.J., et al. 1998. A coactivator of pre-mRNA splicing. Genes Dev. 12: 996-1009.
4. Eldridge, A.G., et al. 1999. The SRm160/300 splicing coactivator is required for exon-enhancer function. Proc. Natl. Acad. Sci. USA 96: 6125-6130.
5. Schaal, T.D., et al. 1999. Selection and characterization of pre-mRNA splicing enhancers: identification of novel SR protein-specific enhancer sequences. Mol. Cell. Biol. 19: 1705-1719.

CHROMOSOMAL LOCATION

Genetic locus: SRRM2 (human) mapping to 16p13.3.

SOURCE

SRm300 (C-9) is a mouse monoclonal antibody raised against amino acids 2371-2481 mapping near the C-terminus of SRm300 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-390315 X, 200 µg/0.1 ml.

SRm300 (C-9) is available conjugated to agarose (sc-390315 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390315 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390315 PE), fluorescein (sc-390315 FITC), Alexa Fluor® 488 (sc-390315 AF488), Alexa Fluor® 546 (sc-390315 AF546), Alexa Fluor® 594 (sc-390315 AF594) or Alexa Fluor® 647 (sc-390315 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390315 AF680) or Alexa Fluor® 790 (sc-390315 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

SRm300 (C-9) is recommended for detection of SRm300 of 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 SRm300 siRNA (h): sc-38337, SRm300 shRNA Plasmid (h): sc-38337-SH and SRm300 shRNA (h) Lentiviral Particles: sc-38337-V.

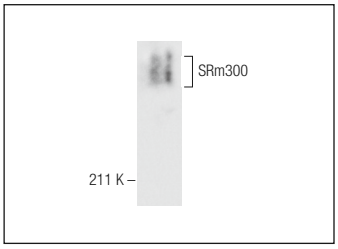
SRm300 (C-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: human PBL whole cell lysate.

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



SRm300 (C-9): sc-390315. Western blot analysis of SRm300 expression in human PBL whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zanini, I.M., et al. 2017. Human cactin interacts with DHX8 and SRRM2 to assure efficient pre-mRNA splicing and sister chromatid cohesion. J. Cell Sci. 130: 767-778.

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.