SANTA CRUZ BIOTECHNOLOGY, INC.

SRp30c (1G7): sc-293314

BACKGROUND

Pre-mRNA splicing enhancer elements are short RNA sequences capable of activating weak splice sites in nearby introns that are required for accurate splice site recognition and the control of alternative splicing. Splicing enhancer elements contain specific binding sites for serine/arginine (SR)-rich splicing factors, most of which contain one or more RNA recognition motifs (RRM) and an arginine/serine (RS)-rich domain. SRs are not only essential for constitutive splicing, but also regulate splicing in a concentration-dependent manner by influencing the selection of alternative splice sites. SRp30c, also known as SFRS9 (splicing factor, arginine/serine-rich 9), is a 221 amino acid protein that localizes to various areas within the nucleus and contains two RRM domains. Expressed at high levels in placenta, heart, pancreas and kidney, SRp30c functions as an SR-rich splicing factor that interacts with a variety of proteins and is capable of modulating the selection of alternative splice sites.

REFERENCES

1. Screaton, G.R., et al. 1995. Identification and characterization of three members of the human SR family of pre-mRNA splicing factors. EMBO J. 14: 4336-4349.
2. Stoss, O., et al. 1999. Alternative splicing determines the intracellular localization of the novel nuclear protein Nop30 and its interaction with the splicing factor SRp30c. J. Biol. Chem. 274: 10951-10962.
3. Hofmann, Y., et al. 2000. Htra2-β1 stimulates an exonic splicing enhancer and can restore full-length SMN expression to survival motor neuron 2 (SMN2). Proc. Natl. Acad. Sci. USA 97: 9618-9623.
4. Young, P.J., et al. 2002. SRp30c-dependent stimulation of survival motor neuron (SMN) exon 7 inclusion is facilitated by a direct interaction with hTra2 β1. Hum. Mol. Genet. 11: 577-587.
5. Zhu, J., et al. 2007. Bombesin attenuates pre-mRNA splicing of glucocorticoid receptor by regulating the expression of serine-arginine protein p30c (SRp30c) in prostate cancer cells. Biochim. Biophys. Acta 1773: 1087-1094.
6. Paradis, C., et al. 2007. hnRNP I/PTB can antagonize the splicing repressor activity of SRp30c. RNA 13: 1287-1300.
7. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 601943. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: SRSF9 (human) mapping to 12q24.31; Srsf9 (mouse) mapping to 5 F.

SOURCE

SRp30c (1G7) is a mouse monoclonal antibody raised against amino acids 1-100 of SRp30c of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SRp30c (1G7) is recommended for detection of SRp30c 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SRp30c siRNA (h): sc-95734, SRp30c siRNA (m): sc-153822, SRp30c shRNA Plasmid (h): sc-95734-SH, SRp30c shRNA Plasmid (m): sc-153822-SH, SRp30c shRNA (h) Lentiviral Particles: sc-95734-V and SRp30c shRNA (m) Lentiviral Particles: sc-153822-V.

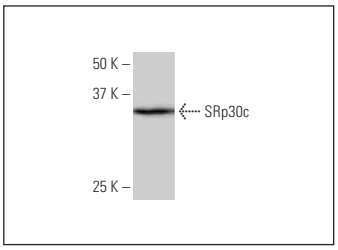
Molecular Weight of SRp30c: 26 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211.

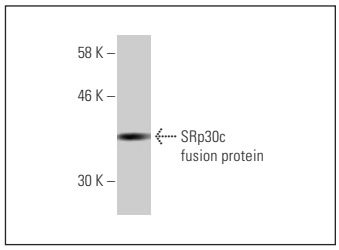
RECOMMENDED SUPPORT REAGENTS

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).

DATA



SRp30c (1G7): sc-293314. Western blot analysis of SRp30c expression in RAW 264.7 whole cell lysate.



SRp30c (1G7): sc-293314. Western blot analysis of human recombinant SRp30c fusion protein.

SELECT PRODUCT CITATIONS

1. Choi, K., et al. 2021. Regulation of survival motor neuron gene expression by calcium signaling. Int. J. Mol. Sci. 22: 10234.
2. Qi, J.Z., et al. 2022. Functions of long non-coding RNA LNC11649 in non-small cell lung cancer cells as a reprocessed form of MALAT1. Neoplasma 69: 1322-1337.
3. Wang, J., et al. 2024. A positive feedback loop of SRSF9/USP22/ZEB1 promotes the progression of ovarian cancer. Cancer Biol. Ther. 25: 2427415.

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.