SRp30c (N-13): sc-169426



The Power to Question

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

- Screaton, G.R., Cáceres, J.F., Mayeda, A., Bell, M.V., Plebanski, M., Jackson, D.G., Bell, J.I. and Krainer, A.R. 1995. Identification and characterization of three members of the human SR family of pre-mRNA splicing factors. EMBO J. 14: 4336-4349.
- Stoss, O., Schwaiger, F.W., Cooper, T.A. and Stamm, S. 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., Lorson, C.L., Stamm, S., Androphy, E.J. and Wirth, B. 2000. Htra2- β 1 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., DiDonato, C.J., Hu, D., Kothary, R., Androphy, E.J. and Lorson, C.L. 2002. SRp30c-dependent stimulation of survival motor neuron (SMN) exon 7 inclusion is facilitated by a direct interaction with hTra2 β 1. Hum. Mol. Genet. 11: 577-587.
- Zhu, J., Gong, J.Y., Goodman, O.B., Cartegni, L., Nanus, D.M. and Shen, R. 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.
- Paradis, C., Cloutier, P., Shkreta, L., Toutant, J., Klarskov, K. and Chabot, B. 2007. hnRNP I/PTB can antagonize the splicing repressor activity of SRp30c. RNA 13: 1287-1300.
- 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/
- 8. Cloutier, P., Toutant, J., Shkreta, L., Goekjian, S., Revil, T. and Chabot, B. 2008. Antagonistic effects of the SRp30c protein and cryptic 5' splice sites on the alternative splicing of the apoptotic regulator Bcl-x. J. Biol. Chem. 283: 21315-21324.

RESEARCH USE

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

CHROMOSOMAL LOCATION

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

SOURCE

SRp30c (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SRp30c of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169426 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SRp30c (N-13) 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), 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); non cross-reactive with SRp30a or SRp30b.

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: human placenta extract: sc-363772.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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



Try **SRp30c (1G7): sc-293314**, our highly recommended monoclonal alternative to SRp30c (N-13).