

# SRp55 (H-180): sc-67100

## BACKGROUND

Pre-mRNA splicing is a critical step in the posttranscriptional regulation of gene expression. Several protein complexes are involved in proper mRNA splicing and transport. Serine/arginine-rich (SR) proteins SRp55, SRp30c and HtrA2 $\beta$ 1 regulate exon 2 and 10 splicing. The first two inhibit both exons and SRp55 also plays a role in exon inclusion after the removal of intronic splicing silencer sequences. SRp55 plays a major role in maintaining normal FGFR1  $\alpha$ -exon inclusion.

## REFERENCES

1. Ring, H.Z., et al. 1994. The SR protein B52/SRp55 is essential for *Drosophila* development. *Mol. Cell. Biol.* 14: 7499-7506.
2. Nagel, R.J., et al. 1998. Specific binding of an exonic splicing enhancer by the pre-mRNA splicing factor SRp55. *RNA* 4: 11-23.
3. Lemaire, R., et al. 1999. SF2 and SRp55 regulation of CD45 exon 4 skipping during T cell activation. *Eur. J. Immunol.* 29: 823-837.
4. Tran, Q., et al. 2003. SRp55 is a regulator of calcitonin/CGRP alternative RNA splicing. *Biochemistry* 42: 951-957.
5. Lai, M.C., et al. 2003. Differential effects of hyperphosphorylation on splicing factor SRp55. *Biochem. J.* 371: 937-945.
6. Tran, Q., et al. 2003. Human transformer 2 $\beta$  and SRp55 interact with a calcitonin-specific splice enhancer. *Biochim. Biophys. Acta* 1625: 141-152.
7. Jin, W., et al. 2004. Enhancer-dependent splicing of FGFR1  $\alpha$ -exon is repressed by RNA interference-mediated down-regulation of SRp55. *Cancer Res.* 64: 8901-8905.
8. Yu, Q., et al. 2004. A minimal length between Tau exon 10 and 11 is required for correct splicing of exon 10. *J. Neurochem.* 90: 164-172.
9. Wang, Y., et al. 2005. Tau exons 2 and 10, which are misregulated in neurodegenerative diseases, are partly regulated by silencers which bind a SRp30c.SRp55 complex that either recruits or antagonizes HtrA2 $\beta$ 1. *J. Biol. Chem.* 280: 14230-14239.

## SOURCE

SRp55 (H-180) is a rabbit polyclonal antibody raised against amino acids 1-180 mapping at the N-terminus of SRp55 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## PROTOCOLS

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

## APPLICATIONS

SRp55 (H-180) is recommended for detection of SRp55, and to a lesser extent, SRp75, SRp40 and other family members of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

SRp55 (H-180) is also recommended for detection of SRp55, and to a lesser extent, SRp75, SRp40 and other family members in additional species, including bovine, porcine and avian.

SRp55 (H-180) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of unphosphorylated SRp55: 40 kDa.

Molecular Weight of phosphorylated SRp55: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HeLa nuclear extract: sc-2120 or K-562 nuclear extract: sc-2130.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## RESEARCH USE

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



Try **SR (1H4): sc-13509** or **SRp55 (C-6): sc-515111**, our highly recommended monoclonal alternatives to SRp55 (H-180). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SR (1H4): sc-13509**.