SANTA CRUZ BIOTECHNOLOGY, INC.

SF2/ASF/SRp30 (H-110): sc-28724

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pre-mRNA splicing enhancer elements are short RNA sequences capable of activating weak splice sites in nearby introns. They 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, which include SC35, 9G8, SRp20, and SF2/ASF. The family of SR factors all contain one or more RNA recognition motifs (RRM) and an arginine/serine (RS)-rich domain. They are essential for constitutive splicing and also regulate splicing in a concentration-dependent manner by influencing the selection of alternative splice sites. The majority of SR proteins, including SC35 and SRp40, are confined to the nucleus, while SF2/ASF, SRp20, and 9G8 are continuously shuttled between the nucleus and the cytoplasm and contribute to mRNA transport. The activity of SR proteins in regulated splicing is antagonized by members of the hnRNP A/B family of proteins, which induce drastic shifts in the selection of splicing sites. An additional SR-associated protein, p32, tightly associates with SR factors and preferentially inhibits ASF/SF2 functioning as both a splicing enhancer and splicing repressor protein, by preventing the stable interaction of ASF/SF2 and the RNA.

CHROMOSOMAL LOCATION

Genetic locus: SFRS1 (human) mapping to 17q22, SFRS9 (human) mapping to 12q24.31; Sfrs1 (mouse) mapping to 11 C, Sfrs9 (mouse) mapping to 5 F.

SOURCE

SF2/ASF/SRp30 (H-110) is a rabbit polyclonal antibody raised against amino acids 139-248 mapping at the C-terminus of SF2/ASF of human origin.

PRODUCT

Each vial contains 200 µg 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.

RESEARCH USE

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

APPLICATIONS

SF2/ASF/SRp30 (H-110) is recommended for detection of SF2/ASF isoforms 1-3 and SRp30 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)], 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).

SF2/ASF/SRp30 (H-110) is also recommended for detection of SF2/ASF isoforms 1-3 and SRp30 in additional species, including equine, canine, bovine, porcine and avian.

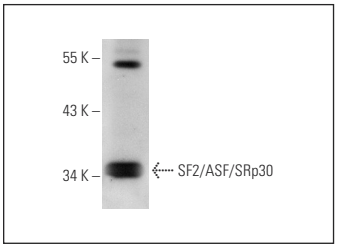
Molecular Weight of SF2/ASF: 32 kDa.

Molecular Weight of SRp30: 30 kDa.

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.

DATA



SF2/ASF/SRp30 (H-110): sc-28724. Western blot analysis of SF2/ASF/SRp30 expression in 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sano, E., et al. 2008. Novel tyrosine phosphorylated and cardiolipin-binding protein CLPABP functions as mitochondrial RNA granule. Biochim. Biophys. Acta 1783: 1036-1047.
2. Barboric, M., et al. 2009. 7SK snRNP/P-TEFβ couples transcription elongation with alternative splicing and is essential for vertebrate development. Proc. Natl. Acad. Sci. USA 106: 7798-7803.
3. Patwardhan, G.A., et al. 2014. Ceramide modulates pre-mRNA splicing to restore the expression of wild-type tumor suppressor p53 in deletion-mutant cancer cells. Biochim. Biophys. Acta 1841: 1571-1580.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.