

# SFRS16 (D-15): sc-161218

## 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, which include SC35, 9G8, SRp20 and SF2/ASF. The family of SR factors all contain one or more RNA recognition motifs (RRM) and an SR-rich domain. The SR factor family is not only essential for constitutive splicing, but also regulate splicing in a concentration-dependent manner by influencing the selection of alternative splice sites. SFRS16 (splicing factor, arginine/serine-rich 16), also known as SWAP2 (suppressor of white-apricot homolog 2) or CLASP, is a 674 amino acid nuclear protein that belongs to the splicing factor SR family and most likely regulates CLK1 mRNA splicing. Existing as two alternatively spliced isoforms, SFRS16 is highly expressed in brain and undergoes post-translational phosphorylation by CLK4 *in vitro*.

## REFERENCES

1. Fu, X.D. 1993. Specific commitment of different pre-mRNAs to splicing by single SR proteins. *Nature* 365: 82-85.
2. Caceres, J.F., et al. 1998. A specific subset of SR proteins shuttles continuously between the nucleus and the cytoplasm. *Genes Dev.* 12: 55-66.
3. 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.
4. Cavaloc, Y., et al. 1999. The splicing factors 9G8 and SRp20 transactivate splicing through different and specific enhancers. *RNA* 5: 468-483.
5. Barnard, D.C., et al. 2002. Regulation of alternative splicing by SRp86 through coactivation and repression of specific SR proteins. *RNA* 8: 526-533.
6. Katsu, R., et al. 2002. Novel SR-rich-related protein clasp specifically interacts with inactivated Clk4 and induces the exon EB inclusion of Clk. *J. Biol. Chem.* 277: 44220-44228.

## CHROMOSOMAL LOCATION

Genetic locus: CLASRP (human) mapping to 19q13.32; Clasrp (mouse) mapping to 7 A3.

## SOURCE

SFRS16 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SFRS16 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.

Blocking peptide available for competition studies, sc-161218 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

SFRS16 (D-15) is recommended for detection of SFRS16 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 other SFRS family members.

SFRS16 (D-15) is also recommended for detection of SFRS16 in additional species, including canine and bovine.

Suitable for use as control antibody for SFRS16 siRNA (h): sc-97159, SFRS16 siRNA (m): sc-153404, SFRS16 shRNA Plasmid (h): sc-97159-SH, SFRS16 shRNA Plasmid (m): sc-153404-SH, SFRS16 shRNA (h) Lentiviral Particles: sc-97159-V and SFRS16 shRNA (m) Lentiviral Particles: sc-153404-V.

Molecular Weight (predicted) of SFRS16: 77 kDa.

Molecular Weight (observed) of SFRS16: 90-95 kDa.

## 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.

## PROTOCOLS

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