

SFRS16 (E-7): sc-514890

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.

CHROMOSOMAL LOCATION

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

SOURCE

SFRS16 (E-7) is a mouse monoclonal antibody raised against amino acids 28-152 mapping near the N-terminus of SFRS16 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SFRS16 (E-7) is available conjugated to agarose (sc-514890 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514890 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514890 PE), fluorescein (sc-514890 FITC), Alexa Fluor® 488 (sc-514890 AF488), Alexa Fluor® 546 (sc-514890 AF546), Alexa Fluor® 594 (sc-514890 AF594) or Alexa Fluor® 647 (sc-514890 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514890 AF680) or Alexa Fluor® 790 (sc-514890 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

SFRS16 (E-7) is recommended for detection of SFRS16 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

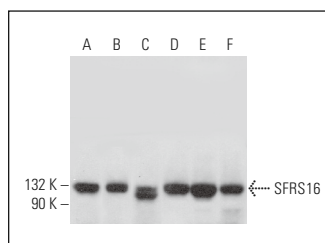
Molecular Weight (observed) of SFRS16: 90-95 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

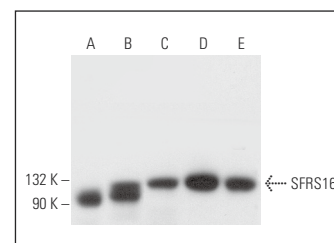
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SFRS16 (E-7): sc-514890. Western blot analysis of SFRS16 expression in HeLa (A) and Jurkat (B) nuclear extracts and A2058 (C), ALL-SIL (D), TK-1 (E) and BYDP (F) whole cell lysates.



SFRS16 (E-7): sc-514890. Western blot analysis of SFRS16 expression in C32 (A) and HeLa (B) nuclear extracts and Hep G2 (C), Jurkat (D) and SK-MEL-28 (E) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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

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