

SFRS14 (N-14): sc-240868

BACKGROUND

SFRS14 (splicing factor, arginine/serine-rich 14) is a 1,082 amino acid protein that belongs to the SR-related family of pre-mRNA processing factors. SFRS14 contains an arginine/serine-rich region at its N-terminus, two SURP motif repeats and a C-terminal G-patch domain. The SURP motif is a domain that is commonly found in splicing proteins, while the G-patch domain is typical of RNA-binding proteins in eukaryotes. Expressed in fetal brain, fetal kidney and adult testis, SFRS14 localizes to the nucleus and is believed to participate in pre-mRNA splicing mechanisms. In addition, SFRS14 contains several potential phosphorylation sites, suggesting that its activity may be regulated by phosphorylation. Three isoforms exist for SFRS14 due to alternative splicing events.

REFERENCES

1. Nagase, T., et al. 1997. Prediction of the coding sequences of unidentified human genes. VII. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. *DNA Res.* 4: 141-150.
2. Sampson, N.D., et al. 2003. SF4 and SFRS14, two related putative splicing factors on human chromosome 19p13.11. *Gene* 305: 91-100.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607993. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Yiu, W.H., et al. 2004. Cloning and characterization of a novel endoplasmic reticulum localized G-patch domain protein, IER3IP1. *Gene* 337: 37-44.
5. Kuwasako, K., et al. 2006. Solution structures of the SURP domains and the subunit-assembly mechanism within the splicing factor SF3a complex in 17S U2 SnRNP. *Structure* 14: 1677-1689.
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CHROMOSOMAL LOCATION

Genetic locus: SUGP2 (human) mapping to 19p13.11; Sugg2 (mouse) mapping to 8 B3.3.

SOURCE

SFRS14 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SFRS14 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-240868 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SFRS14 (N-14) is recommended for detection of SFRS14 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.

SFRS14 (N-14) is also recommended for detection of SFRS14 in additional species, including equine and canine.

Suitable for use as control antibody for SFRS14 siRNA (h): sc-97679, SFRS14 siRNA (m): sc-153402, SFRS14 shRNA Plasmid (h): sc-97679-SH, SFRS14 shRNA Plasmid (m): sc-153402-SH, SFRS14 shRNA (h) Lentiviral Particles: sc-97679-V and SFRS14 shRNA (m) Lentiviral Particles: sc-153402-V.

Molecular Weight of SFRS14: 120 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or SFRS14 (h): 293T Lysate: sc-113408.

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.

RESEARCH USE

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

PROTOCOLS

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