

# SFRS14 (K-15): sc-240870

## 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

- 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.
- Sampson, N.D., et al. 2003. SF4 and SFRS14, two related putative splicing factors on human chromosome 19p13.11. Gene 305: 91-100.
- 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/>
- Yiu, W.H., et al. 2004. Cloning and characterization of a novel endoplasmic reticulum localized G-patch domain protein, IER3IP1. Gene 337: 37-44.
- 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.
- Rosenquist, T.H., et al. 2007. Microarray analysis of homocysteine-responsive genes in cardiac neural crest cells *in vitro*. Dev. Dyn. 236: 1044-1054.

## CHROMOSOMAL LOCATION

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

## SOURCE

SFRS14 (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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-240870 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 (K-15) 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), 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); non cross-reactive with other SFRS family members.

SFRS14 (K-15) is also recommended for detection of SFRS14 in additional species, including equine, canine, bovine, porcine and avian.

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.

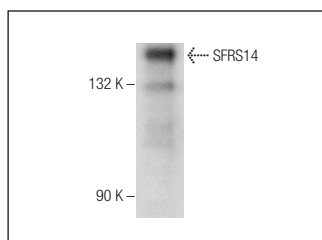
Molecular Weight of SFRS14: 120 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or mouse testis extract: sc-2405.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



SFRS14 (K-15): sc-240870. Western blot analysis of SFRS14 expression in mouse testis tissue extract.

## RESEARCH USE

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

## PROTOCOLS

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