

FUSIP1 (T-18): sc-101132



The Power to Question

BACKGROUND

FUSIP1 (FUS interacting protein (serine/arginine-rich) 1), also known as NSSR, TASR (TLS-associated protein with Ser-Arg repeats), SRp38, TASR1, TASR2, FUSIP2, SFRS13 or SRp40 (40 kDa SR-repressor protein), is a member of the serine/arginine (SR) family of splicing factors. Members of the SR family all contain one or more RNA recognition motifs (RRM) and an SR-rich domain. SR factors are not only essential for constitutive splicing but also regulate splicing in a concentration-dependent manner by influencing the selection of alternative splice sites. Expressed in a variety of tissues with low expression in kidney, liver and heart, FUSIP1 localizes to the cytoplasm and nuclear speckles. In its dephosphorylated form (occurring during M phase of the cell cycle), FUSIP1 functions as a potent general repressor of pre-mRNA splicing and can interact with U1 SnRNP 70. In its phosphorylated form, FUSIP1 interacts with Tra-2 β and, together, they may cooperate in the regulation of splicing. Four isoforms exist for FUSIP1. In neurons, FUSIP1 isoforms may act to either positively or negatively regulate alternative splicing.

REFERENCES

- Yang, L., et al. 1998. Oncoprotein TLS interacts with serine-arginine proteins involved in RNA splicing. *J. Biol. Chem.* 273: 27761-27764.
- Komatsu, M., et al. 1999. Cloning and characterization of two neural-salient serine/arginine-rich (NSSR) proteins involved in the regulation of alternative splicing in neurones. *Genes Cells* 4: 593-606.

CHROMOSOMAL LOCATION

Genetic locus: SRSF10 (human) mapping to 1p36.11; Srsf10 (mouse) mapping to 4 D3.

SOURCE

FUSIP1 (T-18) is a mouse monoclonal antibody raised against recombinant FUSIP1 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FUSIP1 (T-18) is recommended for detection of FUSIP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 FUSIP1 siRNA (m): sc-145275, FUSIP1 shRNA Plasmid (m): sc-145275-SH and FUSIP1 shRNA (m) Lentiviral Particles: sc-145275-V.

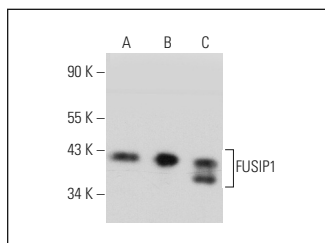
Molecular Weight of FUSIP1: 40 kDa.

Positive Controls: A-673 nuclear extract: sc-2128, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

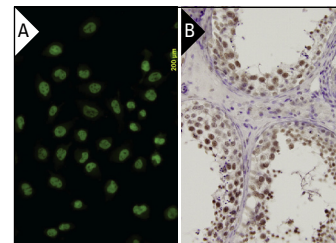
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FUSIP1 (T-18): sc-101132. Western blot analysis of FUSIP1 expression in Hep G2 (A) and Jurkat (B) whole cell lysates and A-673 nuclear extract (C).



FUSIP1 (T-18): sc-101132. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

- Omer Javed, A., et al. 2018. Microcephaly modeling of kinetochore mutation reveals a brain-specific phenotype. *Cell Rep.* 25: 368-382.e5.
- Meinke, S., et al. 2020. Srsf10 and the minor spliceosome control tissue-specific and dynamic SR protein expression. *Elife* 9: e56075.
- Neumann, A., et al. 2020. Alternative splicing coupled mRNA decay shapes the temperature-dependent transcriptome. *EMBO Rep.* 21: e51369.
- He, R., et al. 2021. Identification of a long noncoding RNA TRAF3IP2-AS1 as key regulator of IL-17 signaling through the SRSF10-IRF1-Act1 axis in autoimmune diseases. *J. Immunol.* 206: 2353-2365.

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.

PROTOCOLS

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