

## SRSF3 Antibody

Catalog # ASC11923

## Specification

## SRSF3 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW

**Application Notes** 

WB, IF, ICC, E <u>P84103</u> <u>NP\_003008</u>, <u>6428</u> Human, Mouse, Rat Rabbit Polyclonal IgG Predicted: 18 kDa

Observed: 19 kDa KDa SRSF3 antibody can be used for detection of SRSF3 by Western blot at 1 - 2  $\mu$ g/ml. Antibody can also be used for Immunocytochemistry starting at 2  $\mu$ g/mL. For immunofluorescence start at 2  $\mu$ g/mL.

# SRSF3 Antibody - Additional Information

Gene ID 6428 Target/Specificity SRSF3 antibody was raised against a 19 amino acid peptide near the center of human SRSF3.<br><br>The immunogen is located within amino acids 80 - 130 of SRSF3.

**Reconstitution & Storage** SRSF3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions** SRSF3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## SRSF3 Antibody - Protein Information

Name SRSF3

Synonyms SFRS3, SRP20

Function

Splicing factor, which binds the consensus motif 5'- C[ACU][AU]C[ACU][AC]C-3' within pre-mRNA and promotes specific exons inclusion during alternative splicing (PubMed:<a href="http://www.uniprot.org/citations/17036044" target="\_blank">17036044</a>, PubMed:<a href="http://www.uniprot.org/citations/26876937" target="\_blank">26876937</a>, PubMed:<a href="http://www.uniprot.org/citations/26876937" target="\_blank">26876937</a>, PubMed:<a href="http://www.uniprot.org/citations/32440474" target="\_blank">32440474</a>). Interaction with YTHDC1, a RNA- binding protein that recognizes and binds N6-methyladenosine (m6A)containing RNAs, promotes recruitment of SRSF3 to its mRNA-binding elements adjacent to m6A



sites within exons (PubMed:<a href="http://www.uniprot.org/citations/26876937" target="\_blank">26876937</a>). Also functions as an adapter involved in mRNA nuclear export (PubMed:<a href="http://www.uniprot.org/citations/11336712" target="\_blank">11336712</a>, PubMed:<a href="http://www.uniprot.org/citations/18364396" target="\_blank">18364396</a>, PubMed:<a href="http://www.uniprot.org/citations/28984244" target="\_blank">28984244</a>). Binds mRNA which is thought to be transferred to the NXF1-NXT1 heterodimer for export (TAP/NXF1 pathway); enhances NXF1-NXT1 RNA-binding activity (PubMed:<a href="http://www.uniprot.org/citations/18364396" target="\_blank">11336712</a>, PubMed:<a href="http://www.uniprot.org/citations/1136712" target="\_blank">11336712</a>, PubMed:<a href="http://www.uniprot.org/citations/1136712" target="\_blank">11336712</a>, PubMed:<a href="http://www.uniprot.org/citations/1136712" target="\_blank">11336712</a>, PubMed:<a href="http://www.uniprot.org/citations/1136712" target="\_blank">11336712</a>, PubMed:<a href="http://www.uniprot.org/citations/18364396" target="\_blank">11336712</a>, facilitates m6A-containing mRNA-binding to both SRSF3 and NXF1, promoting mRNA nuclear export (PubMed:<a href="http://www.uniprot.org/citations/28984244" target="\_blank">28984244</a>).

#### **Cellular Location**

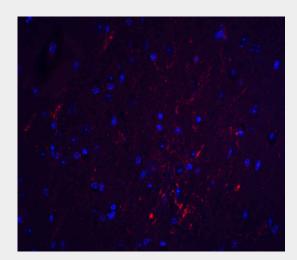
Nucleus. Nucleus speckle. Cytoplasm. Note=Recruited to nuclear speckles following interaction with YTHDC1.

#### SRSF3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

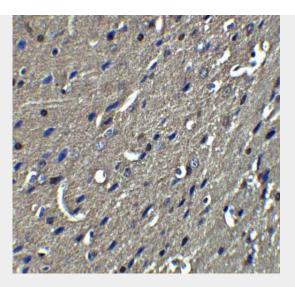
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### SRSF3 Antibody - Images



Immunofluorescence of S1PR2 in mouse brain tissue with S1PR2 antibody at 20 µg/ml.





Immunohistochemistry of NogoA in mouse brain tissue with NogoA antibody at 5 µg/ml.

## SRSF3 Antibody - Background

SRSF3, a member of the serine/arginine (SR)-rich family of pre-mRNA splicing factors which constitute part of the spliceosome, may be involved in RNA processing in relation with cellular proliferation and/or maturation (1,2). Each of these factors contains an RNA recognition motif (RRM) for binding RNA and an RS domain for binding other proteins (3). The RS domain is rich in serine and arginine residues and facilitates interaction between different SR splicing factors. In addition to being critical for mRNA splicing, the SR proteins have also been shown to be involved in mRNA export from the nucleus and in translation (3,4).

## SRSF3 Antibody - References

Sen S, Jumaa H, and Webster NJ. Splicing factor SRSF3 is crucial for hepatocyte differentiation and metabolic function. Nat. Commun. 2013; 4:1336.

Gonçalves V, Matos P, and Jordan P. The beta-catenin/TCF4 pathway modifies alternative splicing through modulation of SRp20 expression. RNA 2008; 14:2538-49.

Tang Y, Horikawa I, Ajiro M, et al. Downregulation of splicing factor SRSF3 induces p53β, an alternatively spliced isoform of p53 that promotes cellular senescence. Oncogene 2013; 32:2792-8. Jia R, Li C, McCoy JP, et al. SRp20 is a proto-oncogene critical for cell proliferation and tumor induction and maintenance. Int. J. Biol. Sci. 2010; 6:806-26.