

Rabbit SFRS1 Polyclonal Antibody | anti-SFRS1 antibody

SFRS1 Antibody

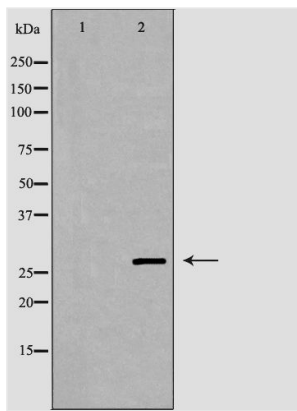
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326295	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

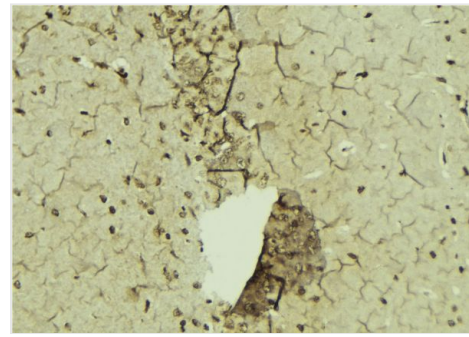
SFRS1; Polyclonal Antibody; SFRS1 Antibody; Alternative splicing factor 1; Alternative-splicing factor 1; arginine/serine-rich 1; ASF 1; ASF; ASF-1; ASF1; FLJ53078; MGC5228; P33 subunit; Pre mRNA splicing factor SF2 P33 subunit; pre-mRNA-splicing factor SF2; Serine/arginine-rich splicing factor 1; SF2; SF2P33; Splicing factor 2 alternate splicing factor; Splicing factor 2; Splicing factor; Splicing factor arginine/serine rich 1; SR Splicing factor 1; SRp30a; srsf1; SRSF1_HUMAN; anti-SFRS1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	SFRS1 antibody detects endogenous levels of total SFRS1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	201
Applicable Applications for anti-SFRS1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SFRS1
Subcellular Location	Cytoplasm. Nucleus Speckle. In nuclear speckles. Shuttles between the nucleus and the cytoplasm.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

**WB (Western Blot)**

Western blot analysis of extracts of human brain, using SF2/ASF antibody. The lane on the left is treated with the antigen-specific peptide.

**IHC (Immunohistochemistry)**

AAA326295 at 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION**Related Product Information for anti-SFRS1 antibody**

Description: SF2/ASF is a member of the Ser-Arg-rich (SR) protein family of highly conserved nuclear phosphoproteins involved in pre-mRNA splicing (1). Besides its role in nuclear pre-mRNA splicing, SF2/ASF has been shown to shuttle between the nucleus and cytoplasm, suggesting additional roles in mRNA transport and cytoplasmic events (2). SF2/ASF associates with translating ribosomes and stimulates translation (3). It also activates translation initiation by suppressing the activity of 4E-BP1, which is mediated by SF2/ASF association with mTOR and the phosphatase PP2A (4). More recent studies have demonstrated a role for SF2/ASF in microRNA processing (5).

Function: Plays a role in preventing exon skipping, ensuring the accuracy of splicing and regulating alternative splicing. Interacts with other spliceosomal components, via the RS domains, to form a bridge between the 5'- and 3'-splice site binding components, U1 snRNP and U2AF. Can stimulate binding of U1 snRNP to a 5'-splice site-containing pre-mRNA. Binds to purine-rich RNA sequences, either the octamer, 5'-RGAAGAAC-3' (r=A or G) or the decamers, AGGACAGAGC/AGGACGAAGC. Binds preferentially to the 5'-CGAGGCG-3' motif in vitro. Three copies of the octamer constitute a powerful splicing enhancer in vitro, the ASF/SF2 splicing enhancer (ASE) which can specifically activate ASE-dependent splicing. Isoform ASF-2 and isoform ASF-3 act as splicing repressors. May function as export adapter involved in mRNA nuclear export through the TAP/NXF1 pathway.

Subunit Structure: Consists of two polypeptides of p32 and p33. In vitro, self-associates and binds SRSF2, SNRNP70 and U2AF1 but not U2AF2. Binds SREK1/SFRS12. Interacts with SAFB/SAFB1. Interacts with PSIP1/LEDGF. Interacts with SRPK1. Identified in the spliceosome C complex. Interacts with RSR1 (via Arg/Ser-rich domain). Interacts with ZRSR2/U2AF1-RS2. Interacts with CCDC55 (via C-terminus). Interacts with SRPK1 and a sliding docking interaction is essential for its sequential and processive phosphorylation by SRPK1. Interacts with NXF1. Interacts with CCNL1, CCNL2 and CDK11B (PubMed:18216018). Interacts with RRP1B (PubMed:23604122).

Post-translational Modifications: Phosphorylated by CLK1, CLK2, CLK3 and CLK4. Phosphorylated by SRPK1 at multiple serines in its RS domain via a directional (C-terminal to N-terminal) and a dual-track mechanism incorporating both processive phosphorylation (in which the kinase stays attached to the substrate after each round of phosphorylation) and distributive phosphorylation steps (in which the kinase and substrate dissociate after each phosphorylation event). The RS domain of SRSF1 binds to a docking groove in the large lobe of the kinase domain of SRPK1 and this induces certain structural changes in SRPK1 and/or RRM 2 domain of SRSF1, allowing RRM 2 to bind the kinase and initiate phosphorylation. The cycles continue for several phosphorylation steps in a processive manner (steps 1-8) until the last few phosphorylation steps (approximately steps 9-12). During that time, a mechanical stress induces the unfolding of the beta-4 motif in RRM 2, which then docks at the docking groove of SRPK1. This also signals RRM 2 to begin to dissociate, which facilitates SRSF1 dissociation after phosphorylation is completed. Asymmetrically dimethylated at arginines, probably by PRMT1, methylation promotes localization to nuclear speckles.

Similarity: The RRM 2 domain plays an important role in governing both the binding mode and the phosphorylation mechanism of the RS domain by SRPK1. RS domain and RRM 2 are uniquely positioned to initiate a highly directional (C-terminus to N-terminus) phosphorylation reaction in which the RS domain slides through an extended electronegative channel separating the docking groove of SRPK1 and the active site. RRM 2 binds toward the periphery of the active site and guides the directional phosphorylation mechanism. Both the RS domain and an RRM domain are required for nucleocytoplasmic shuttling. Belongs to the splicing factor SR family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	118582269
NCBI GeneID	6426
NCBI Accession #	NP_001071634.1
NCBI GenBank Nucleotide #	NM_001078166.1
UniProt Accession #	Q07955; Q13809; B2R6Z7; D3DTZ3
Molecular Weight	Observed: 28 kDa Predicted: 28 kDa
NCBI Official Full Name	serine/arginine-rich splicing factor 1 isoform 2
NCBI Official Synonym Full Names	serine and arginine rich splicing factor 1
NCBI Official Symbol	SRSF1
NCBI Official Synonym Symbols	ASF; SF2; SFRS1; SF2p33; SRp30a
NCBI Protein Information	serine/arginine-rich splicing factor 1
UniProt Protein Name	Serine/arginine-rich splicing factor 1
UniProt Gene Name	SRSF1
UniProt Synonym Gene Names	ASF; SF2; SF2P33; SFRS1; ASF-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/sfrs1-antibody-immunohistochemistry-western-blot-elisa/326295>