# Recombinant Human Serine/arginine-rich splicing factor 1 (SRSF1)

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| **Product Code** | CSB-EP021142HU |
| **Relevance** | 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. |
| **Abbreviation** | Recombinant Human SRSF1 protein |
| **Storage** | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C. |
| **Uniprot No.** | Q07955 |
| **Alias** | Alternative-splicing factor 1 ;ASF-1Splicing factor, arginine/serine-rich 1pre-mRNA-splicing factor SF2, P33 subunit |
| **Product Type** | Recombinant Protein |
| **Immunogen Species** | Homo sapiens (Human) |
| **Purity** | Greater than 90% as determined by SDS-PAGE. |
| **Sequence** | SGGGVIRGPAGNNDCRIYVGNLPPDIRTKDIEDVFYKYGAIRDIDLKNRRGGPPFAFVEFEDPRDAEDAVYGRDGYDYDGYRLRVEFPRSGRGTGRGGGGGGGGGAPRGRYGPPSRRSENRVVVSGLPPSGSWQDLKDHMREAGDVCYADVYRDGTGVVEFVRKEDMTYAVRKLDNTKFRSHEGETAYIRVKVDGPRSPSYGRSRSRSRSRSRSRSNSRSRSYSPRRSRGSPRYSPRHSRSRSRT |
| **Research Area** | Transcription |
| **Source** | E.coli |
| **Target Names** | SRSF1 |
| **Expression Region** | 2-248aa |
| **Notes** | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week. |
| **Tag Info** | N-terminal 6xHis-SUMO-tagged |

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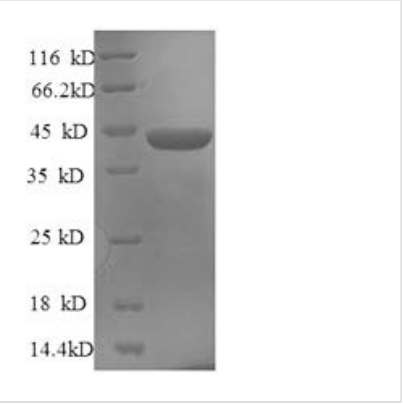
| **Mol. Weight** | 43.6kDa |
| **Protein Length** | Full Length of Mature Protein |

**Image**




(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

**Description**

The region for expressing recombinant Human SRSF1 contains amino acids 2-248. This SRSF1 protein is theoretically predicted to have a molecular weight of 43.6 kDa. Expression of this SRSF1 protein is conducted in e.coli. The SRSF1 coding gene included the N-terminal 6xHis-SUMO tag, which simplifies the detection and purification processes of the recombinant SRSF1 protein in following stages of expression and purification.

Serine/arginine-rich splicing factor 1 (SRSF1), also known as SF2/ASF, is a multifunctional RNA-binding protein involved in pre-mRNA splicing regulation. SRSF1 plays a crucial role in constitutive and alternative splicing by binding to exonic splicing enhancer elements. Its main function is to facilitate the recognition of splice sites during spliceosome assembly, influencing the inclusion or exclusion of exons in mature mRNA transcripts. Beyond splicing, SRSF1 has been implicated in various cellular processes, including mRNA export, translation, and mRNA stability. Aberrant expression or post-translational modifications of SRSF1 are associated with several diseases, including cancer, where it can contribute to oncogenesis by altering the splicing patterns of key genes. Research on SRSF1 continues to uncover its intricate roles in gene expression and its potential as a therapeutic target in various pathologies.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Shelf Life**

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Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.