SRSF1 Protein, Human (His-SUMO)

Cat. No.:	HY-P700524
Synonyms:	Alternative-splicing factor 1; ASF-1Splicing factor; arginine/serine-rich 1pre-mRNA-splicing factor SF2; P33 subunit
Species:	Human
Source:	E. coli
Accession:	Q07955 (S2-T248)
Gene ID:	6426
Molecular Weight:	43.6 kDa

PROPERTIES

AA Sequence	S G G G V I R G P A G N N D C R I Y V G N L P P D I R T K D I E D V F Y K Y G A I R D I D L K N R R G G P P F A F V E F E D P R D A E D A V Y G R D G Y D Y D G Y R L R V E F P R S G R G T G R G G G G G G G G G R G G G G A P R G R Y G P P S R R S E N R V V V S G L P P S G S W Q D L K D H M R E A G D V C Y A D V Y R D G T G V V E F V R K E D M T Y A V R K L D N T K F R S H E G E T A Y I R V K V D G P R S P S Y G R S R S R S R S R S R S N S R S R S Y S P R R S R G S P R Y S P R H S R S R S R T
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	SRSF1 protein plays a crucial role in maintaining splicing fidelity by preventing exon skipping and regulating alternative splicing. Its interaction with spliceosomal components, facilitated by RS domains, establishes a bridge between the 5'- and 3'-splice site binding elements, U1 snRNP and U2AF. SRSF1 exhibits preferential binding to purine-rich RNA sequences, acting as a splicing enhancer in vitro through the ASF/SF2 splicing enhancer (ASE). While isoforms ASF-2 and ASF-3 function as splicing repressors, SRSF1 may also serve as an export adapter in mRNA nuclear export via the TAP/NXF1 pathway. Within the spliceosome C complex, it collaborates with other RNA-binding proteins, including DDX5, HNRNPH2, and splicing

regulator ARVCF. SRSF1's extensive interactome involves proteins such as SAFB/SAFB1, PSIP1/LEDGF, RSRC1, ZRSR2/U2AF1-RS2, CCDC55, SRPK1, NXF1, CCNL1, CCNL2, CDK11B, and RRP1B, showcasing its multifaceted roles in RNA processing and cellular functions. Additionally, its interaction with TNPO3 facilitates nuclear import when phosphorylated in the RS domain, and it interacts with ILDR1 and ILDR2.

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