

HNRNPA2B1 Protein, Mouse (His-SUMO, Myc)

Cat. No.:	HY-P72232
Synonyms:	Hnrnpa2b1; Hnrpa2b1; Heterogeneous nuclear ribonucleoproteins A2/B1; hnRNP A2/B1
Species:	Mouse
Source:	E. coli
Accession:	O88569 (M1-Y353)
Gene ID:	53379
Molecular Weight:	Approximately 57.4 kDa

PROPERTIES

AA Sequence

MEKTLLETVPL	ERKKREKEQF	RKLFIGGLSF	ETTEESLRNY
YEQWGKLTDC	VVMRDPASKR	SRGFGFVTF	SMAEVDAAMA
ARPHSIDGRV	VEPKRAVARE	ESGKPGAHTV	VKKLFVGGIK
EDTEEHHLRD	YFEEYGKIDT	IEIITDRQSG	KKRGGFVTF
DDHDPVDKIV	LQKYHTINGH	NAEVRKALSR	QEMQEVQSSR
SGRGGNFVGF	DSRGGGNFVGF	PGPGSNFRGG	SDGYGSGRGF
GDGYNGYGGG	PGGGNFVGGSP	GYGGGRGGYG	GGGPGYGNQG
GGYGGGYDNY	GGGNVYSGSY	NDFGNYNQQP	SNYGPMSGN
FGGSRNMGGP	YGGGNVYGGP	SGGSGGYGGR	SRY

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 µm sterile filtered PBS, 6% Trehalose, pH 7.4

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O.

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

HNRNPA2B1 Protein, a heterogeneous nuclear ribonucleoprotein (hnRNP), plays a pivotal role in RNA processing and transport. It associates with nascent pre-mRNAs, participating in the formation of hnRNP particles that condense and stabilize transcripts, minimizing tangling and knotting. This packaging process influences various cellular functions, including transcription, pre-mRNA processing, RNA nuclear export, subcellular localization, mRNA translation, and the

stability of mature mRNAs. HNRNPA2B1 forms hnRNP particles with multiple hnRNPs and heterogeneous nuclear RNAs in the nucleus. Notably, in oligodendrocytes and neurons, it facilitates the transport of specific mRNAs to the cytoplasm by recognizing and binding A2RE or A2RE11 sequence motifs on select mRNAs. Beyond mRNA transport, HNRNPA2B1 also binds telomeric DNA sequences, protecting them from endonuclease digestion, and acts as a 'reader' of the N6-methyladenosine (m6A) mark on pri-miRNAs, promoting pri-miRNA processing and miRNA sorting into exosomes. Additionally, it serves as a regulator of mRNA splicing, impacting the splicing of genes like pyruvate kinase PKM. Furthermore, HNRNPA2B1 is implicated in the activation of the innate immune response, sensing viral DNA, and translocating to the cytoplasm to activate the TBK1-IRF3 pathway. These diverse functions highlight the versatility of HNRNPA2B1 in cellular processes.

Caution: Product has not been fully validated for medical applications. For research use only.

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