

Recombinant Human SELENON protein, His & T7-tagged

Cat. No. SELENON-1292H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SELENON aa. (Leu79~His325 (Accession # Q9NZV5) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Human
Source	E.coli
ProteinLength	Leu79~His325
Description	This gene encodes a glycoprotein that is localized in the endoplasmic reticulum. It plays an important role in cell protection against oxidative stress, and in the regulation of redox-related calcium homeostasis. Mutations in this gene are associated with early onset muscle disorders, referred to as SEPN1-related myopathy. SEPN1-related myopathy consists of 4 autosomal recessive disorders, originally thought to be separate entities: rigid spine muscular dystrophy (RSMD1), the classical form of multimicore disease, desmin related myopathy with Mallory-body like inclusions, and congenital fiber-type disproportion (CFTD). This protein is a selenoprotein, containing the rare amino acid selenocysteine (Sec). Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. A second stop-codon redefinition element (SRE) adjacent to the UGA codon has been identified in this gene (PMID:15791204). SRE is a phylogenetically conserved stem-loop structure that stimulates readthrough at the

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	UGA codon, and augments the Sec insertion efficiency by SECIS. Alternatively spliced transcript variants have been found for this gene.
Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 31.4kDa.
Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 5.5.
Applications	SDS-PAGE; WB; ELISA; IP.
Stability	The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage buffer	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Reconstitution	Reconstitute in sterile ddH ₂ O.

GENE INFORMATION

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Gene Name	SELENON selenoprotein N [Homo sapiens (human)]
Official Symbol	SELENON
Synonyms	SELENON; selenoprotein N; RSS; CFTD; SELN; MDRS1; RSMD1; SEPN1; selenoprotein N, 1
Gene ID	57190
mRNA Refseq	NM_020451.2
Protein Refseq	NP_065184.2
UniProt ID	Q9NZV5
SDS-PAGE	