Recombinant Human Selenoprotein X, 1, His-tagged

Cat. No. SEPX1-2827H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human SEPX1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. MW = 14.8 kDa(136aa), confirmed by MALDI-TOF.
Species	Human
Source	E.coli
ProteinLength	1-116 aa
Description	SEPX1, also known as Methionine sulfoxide reductase B1 (MSRB1), is a selenoprotein. Methionine sulfoxide reductases(MSRs) catalyze reduction of free and protein-bound methionine sulfoxides to corresponding methionines. The oxidation of methionine by ROS generates a diastereomeric mixture of methionine-S-sulfoxide (Met-S-SO) and methionine-R-sulfoxide (Met-R-SO). Two distinct enzyme families evolved for reduction of these sulfoxides, with methionine-S-sulfoxide reductase (MsrA) being stereospecific for Met-S-SO and methionine-R-sulfoxide reductase (MsrB) for Met-R-SO.In bacteria, the selenocystein (Sec/U) element is located immediately following the UGA codon within the reading frame for the selenoprotein so we mutated Sec-95 to Cys.
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH MSFCSFFGGE VFQNHFEPGV YVCAKCGYEL FSSRSKYAHS SPWPAFTETI HADSVAKRPE HNRSEALKVS CGKCGNGLGH EFLNDGPKPG QSRFCIFSSS LKFVPKGKET SASQGH

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Purity	> 90% by SDS – PAGE.
Form	Liquid. In 20 mM Tris-HCl Buffer (pH 7.5) containing 1 mM DTT, 0.1 mM PMSF, 2mM EDTA, 10% Glycerol.
Concentration	0.5 mg/ml (determined by Bradford assay).
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION

Gene Name	SEPX1 selenoprotein X, 1 [Homo sapiens]
Synonyms	SEPX1; selenoprotein X, 1; SELR; SELX; MSRB1; HSPC270; MGC3344; methionine-R-sulfoxide reductase B1; selenoprotein R; methionine sulfoxide reductase; EC 1.8.4.-; Selenoprotein X
Gene ID	51734
mRNA Refseq	NM_016332
Protein Refseq	NP_057416
MIM	606216
UniProt ID	Q9NZV6
Chromosome Location	16p13.3

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Function	metal ion binding; oxidoreductase activity; peptide-methionine-(S)-S-oxide reductase activity; zinc ion binding

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