

## Recombinant Human SEPW1 protein, His-tagged

**Cat. No.** SELENOW-03H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human SEPW1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>ProteinLength</b>    | 1-87                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | <p>This gene encodes a selenoprotein containing a selenocysteine (Sec) residue, which is encoded by the UGA codon that normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, the Sec insertion sequence (SECIS) element that is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. This protein is highly expressed in skeletal muscle, heart and brain. It belongs to the SelWTH family, which possesses a thioredoxin-like fold and a conserved CxxU (C is cysteine, U is Sec) motif, suggesting a redox function for this gene. Studies in mouse show that this selenoprotein is involved in muscle growth and differentiation, and in the protection of neurons from oxidative stress during neuronal development. A retroprocessed pseudogene of this locus has been identified on chromosome 1.</p> |
| <b>Form</b>             | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Molecular Mass</b>   | 11.8 kDa (110aa)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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|                       |                                                                                                                                                                 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AA Sequence</b>    | MALAVRVVYCGACGYKSKYLQLKKKLEDEFPGRLDICGEGTPQATGFFEVMVAGKLI<br>HSKKKG DG YVDTESKFLKLVA AIKAALAQG                                                                  |
| <b>Purity</b>         | > 95 % by SDS-PAGE                                                                                                                                              |
| <b>Applications</b>   | SDS-PAGE                                                                                                                                                        |
| <b>Storage</b>        | Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles. |
| <b>Concentration</b>  | 0.25 mg/mL                                                                                                                                                      |
| <b>Storage Buffer</b> | 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1mM DTT                                                                                      |

## GENE INFORMATION

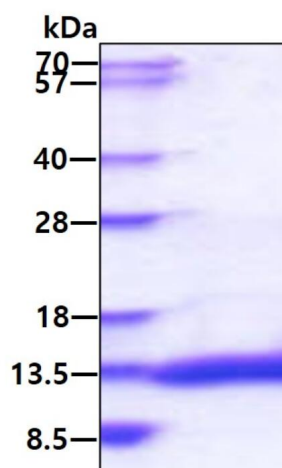
|                        |                                                                            |
|------------------------|----------------------------------------------------------------------------|
| <b>Gene Name</b>       | SELENOW selenoprotein W [ Homo sapiens (human) ]                           |
| <b>Official Symbol</b> | SELENOW                                                                    |
| <b>Synonyms</b>        | SELENOW; selenoprotein W; selW; SEPW1; selenoprotein W; selenoprotein W, 1 |
| <b>Gene ID</b>         | 6415                                                                       |
| <b>mRNA Refseq</b>     | NM_003009                                                                  |
| <b>Protein Refseq</b>  | NP_003000                                                                  |
| <b>MIM</b>             | 603235                                                                     |
| <b>UniProt ID</b>      | P63302                                                                     |

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## SDS-PAGE



3  $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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