

## Recombinant Human MSRB1 protein, His-tagged

**Cat. No.** MSRB1-1294H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <b>Product Overview</b> | Recombinant Human MSRB1 aa. (Met1~His116 (Accession # Q9NZV6) fused with N-terminal His tag was produced in E. coli cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>ProteinLength</b>    | 1-116 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | <p>The protein encoded by this gene belongs to the methionine-R-sulfoxide reductase B (MsrB) family. Members of this family function as repair enzymes that protect proteins from oxidative stress by catalyzing the reduction of methionine-R-sulfoxides to methionines. This protein is highly expressed in liver and kidney, and is localized to the nucleus and cytosol. It is the only member of the MsrB family that is a selenoprotein, containing a selenocysteine (Sec) residue at its active site. It also has the highest methionine-R-sulfoxide reductase activity compared to other members containing cysteine in place of 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 pseudogene of this locus has been identified on chromosome 19.</p> |
| <b>Form</b>             | Freeze-dried powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | Predicted Molecular Mass: 14.3kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Endotoxin</b>      | <1.0EU per 1g (determined by the LAL method)                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Purity</b>         | >95%                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Characteristic</b> | The isoelectric point is 8.3.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Applications</b>   | SDS-PAGE; WB; ELISA; IP.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Stability</b>      | 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. |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.                                                                                                                                                                                                                                                                                                                                                                |
| <b>Storage buffer</b> | Supplied as lyophilized form in PBS, pH7.4, containing 5% sucrose, 0.01% sarcosyl.                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Reconstitution</b> | Reconstitute in sterile PBS, pH7.2-pH7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## GENE INFORMATION

|                        |                                                                             |
|------------------------|-----------------------------------------------------------------------------|
| <b>Gene Name</b>       | MSRB1 methionine sulfoxide reductase B1 [ Homo sapiens (human) ]            |
| <b>Official Symbol</b> | MSRB1                                                                       |
| <b>Synonyms</b>        | MSRB1; methionine sulfoxide reductase B1; SELR; SELX; SepR; SEPX1; HSPC270; |

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methionine-R-sulfoxide reductase B1; selenoprotein R; selenoprotein X, 1

Gene ID 51734

mRNA Refseq NM\_016332.3

Protein Refseq NP\_057416.1

UniProt ID Q9NZV6

SDS-PAGE

