

## **Product datasheet for SC210939**

## OriGene Technologies, Inc.

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## Methionine Sulfoxide Reductase B (MSRB1) (NM\_016332) Human 3' UTR Clone

**Product data:** 

Product Type: 3' UTR Clones

Symbol: Methionine Sulfoxide Reductase B

Synonyms: HSPC270; SELENOR; SELENOX; SELR; SELX; SepR; SEPX1

Mammalian Cell Neomycin

Selection:

Vector: pMirTarget (PS100062)

**ACCN:** NM\_016332

Insert Size: 913 bp

Insert Sequence: >SC210939 3'UTR clone of NM\_016332

The sequence shown below is from the reference sequence of NM\_016332. The complete sequence of

this clone may contain minor differences, such as SNPs.

Blue=Stop Codon Red=Cloning site

GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAGGCCAAGAAGGGCGGAAAGATCGCCGTG

TAACAATTGGCAGAGCTCAGAATTCAA<mark>GCGATCGC</mark>C

GAAACATTCAGATGTA

**ACGCGT**AAGCGGCCGCGCATCTAGATTCGAAGAAAATGACCGACCAAGCGACGCCCAACCTGCCATCA

CGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGG

Restriction Sites: Sgfl-Mlul





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OTI Disclaimer: Our molecular clone sequence data has been matched to the sequence identifier above as a

point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences, e.g., single nucleotide polymorphisms

(SNPs).

Components: The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The

package also includes 100 pmols of both the corresponding 5' and 3' vector primers in

separate vials.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um

filter is required.

**RefSeq:** <u>NM\_016332.4</u>

Summary: 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. [provided by RefSeq, Aug

2017

**Locus ID:** 51734

MW: 32.7