

## Product datasheet for **MC209780**

### **Msrb1 (NM\_013759) Mouse Untagged Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Msrb1 (NM\_013759) Mouse Untagged Clone  
**Symbol:** Msrb1  
**Synonyms:** D17Wsu82; D17Wsu82e; S; SelR; SELX; Sep; Sepr; Sepx1  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC209780 representing NM\_013759  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCGTTCTGCAGCTTCTTCGGAGGCGAGGTTTTCCAGAATCACTTCGAGCCAGGTGTCTACGTGTGTG  
CCAAGTGCAGCTATGAGCTGTTCTCCAGTCACTCGAAGTACGCACACTCATCCCCGTGGCCAGCGTTTCC  
TGAAACCATCCACCAGACAGTGTGACCAAGTCCCTGAGAAAAACCGACCAGAAGCTTTAAAGGTGTCC  
TGTGGCAAGTGTGGCAATGGGTTGGGCCACGAGTTCCTGAATGATGGCCCAAGCGGGACAATCAAGAT  
TCTGAATATTTAGCAGCTCACTGAAGTTCGTCCCTAAAGGCAAAGAAGCTGCTGCCTCCAGGGGCACTA  
G

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_013759

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP). The expression of this clone is not guaranteed due to the nature of selenoproteins.

**OTI Annotation:** This clone encodes a selenoprotein containing the rare amino acid selenocysteine (Sec). Sec is encoded by UGA codon, which normally signals translational termination. Expression of this clone is not guaranteed due to the nature of selenoproteins.



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<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u>NM_013759.2, NP_038787.1</u>
<b>RefSeq Size:</b>	904 bp
<b>RefSeq ORF:</b>	351 bp
<b>Locus ID:</b>	27361
<b>UniProt ID:</b>	<u>Q9JLC3</u>
<b>Cytogenetics:</b>	17 12.53 cM
<b>Gene Summary:</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. Alternatively spliced transcript variants have been described for this gene. [provided by RefSeq, Oct 2016]</p> <p>Transcript Variant: This variant (1) represents the predominant 5-exon transcript. Variants 1 and 2 encode the same protein.</p>