

Product datasheet for **RR212960**

Msrb2 (NM_001031660) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Msrb2 (NM_001031660) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Msrb2
Synonyms: Mrsb
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR212960 representing NM_001031660
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGCTCTGCTGCGAGCGCTGCGGGTCTGCCTTGGCTGGAGGCGCCTGGGCGAGCTCGGGTTGCG
CGGGATCGGGACGCGGGACACAGGGTCTCTTATCAAGTCCAAGCTCTCTAAGCAAGGCAGACTGGCA
GAAGAACTGACCCCTGAGCAATTCTACGTCACCAGAGAGAAAGGAAGTGAAGCGCTTTCAGTGGAAATG
TATTTGAAAAACAAGGAGACAGGGATGTACCATTGCGTGTGCTGTGATAGCCACTCTTCAGTTCTGAGA
AGAAGTACTGTTCTGGCACCGGTTGGCCTTCGTTTTCTGAGGCTCACGGCACAAAGGCTCAGATGAAAG
TCACACAGGGATCCTGAGGCGCCTGGACTTCCTTAGGATGTCCTCGCATGGAGGTGGTCTGCAACAG
TGTGAAGCTCACCTTGCCATGTGTTTCTGATGGACCCGATCCCACTGGACAAAGGTTTTGCATCAACA
GCGTGGCCCTGAAGTTCAAACCAAGCAAGCCC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR212960 representing NM_001031660
Red=Cloning site Green=Tags(s)

MARLLRALRPLWLEAPGRARGCAGSGRGTGSLIKSKLSLSKADWQKLTPEQFYVTREKGTAPFSGM
YLKNETGMYHCVCDSPLFSSEKKYCSGTGWPSFSEAHGTKGSDESHTGILRRLDTSLGCPRMEVVCKQ
CEAHLGHVFPDGPDTGQRF CINSVALKFKPSK

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

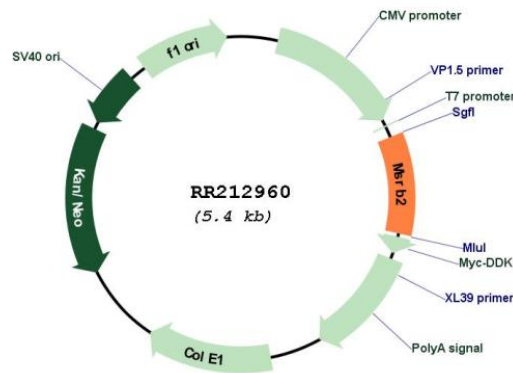
Restriction Sites: SgfI-MluI



Cloning Scheme:



Plasmid Map:



ACCN: NM_001031660

ORF Size: 522 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components:	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).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.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.
RefSeq:	<u>NM_001031660.1</u> , <u>NP_001026830.1</u>
RefSeq Size:	1168 bp
RefSeq ORF:	525 bp
Locus ID:	361286
UniProt ID:	<u>Q4FZX5</u>
Cytogenetics:	17q12.3
MW:	19.1 kDa
Gene Summary:	Methionine-sulfoxide reductase that specifically reduces methionine (R)-sulfoxide back to methionine. While in many cases, methionine oxidation is the result of random oxidation following oxidative stress, methionine oxidation is also a post-translational modification that takes place on specific residue. Upon oxidative stress, may play a role in the preservation of mitochondrial integrity by decreasing the intracellular reactive oxygen species build-up through its scavenging role, hence contributing to cell survival and protein maintenance. [UniProtKB/Swiss-Prot Function]