

## Product datasheet for RC231941

### Methionine Sulfoxide Reductase A (MSRA) (NM\_001199729) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Methionine Sulfoxide Reductase A (MSRA) (NM_001199729) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MSRA
Synonyms:	PMSR
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC231941 representing NM_001199729 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGCTGTATTTGGAATGGGATGTTTCTGGGGAGCTGAAAGGAAATTCGGGTCTTGAAGGAGTGTATT  
CAACTCAAGTTGGTTTTGCAGGAGGCTATACTTCAAATCTACTTATAAAGAAGTCTGCTCAGAAAAAC  
TGGCCATGCAGAAGTCGTCGGAGTGGTGTACCAGCCAGAACACATGAGTTTTGAGGAACTGCTCAAGGTC  
TTCTGGGAGAATCAGACCCGACCAAGGTATGCGCCAGGGGAACGACCATGGCACTCAGTACCGCTCGG  
CCATCTACCCGACCTCTGCCAAGCAAATGGAGGCAGCCCTGAGCTCCAAAGAGAAGTACCAAAAGGTTCT  
TTCAGAGCACGGCTTCGGCCCCATCACTACCGACATCCGGGAGGGACAGACTTTCTACTATGCGGAAGAC  
TACCACCAGCAGTACCTGAGCAAGAACCCCAATGGCTACTGCGGCCTTGGGGCACCGGCGTGTCCTGCC  
CAGTGGGTATTA

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC231941 representing NM_001199729 Red=Cloning site Green=Tags(s)
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MAVFGMGCFWGAERKFWLKGVYSTQVGFAGGYTSNPTYKEVCSEKTGHAEVVRVYVYQPEHMSFEELLKV  
FWENHDPQTQGMRQGNHGTQYRSAIYPTSAKQMEALSSKENYQKVLSEHGFPIITTDIREGQTFYYAED  
YHQYLSKNPNGYCGLGGTGVSCPVGIIK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:	Sgfl-MluI
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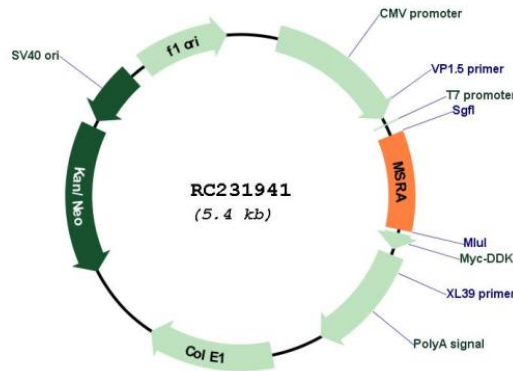


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**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001199729

**ORF Size:** 507 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.

<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>	<a href="#">NM_001199729.3</a>
<b>RefSeq Size:</b>	1716 bp
<b>RefSeq ORF:</b>	510 bp
<b>Locus ID:</b>	4482
<b>UniProt ID:</b>	<a href="#">Q9UJ68</a>
<b>Cytogenetics:</b>	8p23.1
<b>MW:</b>	19.4 kDa
<b>Gene Summary:</b>	This gene encodes a ubiquitous and highly conserved protein that carries out the enzymatic reduction of methionine sulfoxide to methionine. Human and animal studies have shown the highest levels of expression in kidney and nervous tissue. The protein functions in the repair of oxidatively damaged proteins to restore biological activity. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]