

Product datasheet for **RG227449**

Methionine Sulfoxide Reductase A (MSRA) (NM_001135670) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Methionine Sulfoxide Reductase A (MSRA) (NM_001135670) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MSRA
Synonyms:	PMSR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG227449 representing NM_001135670 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCTCTCGGCCACCCGGAGGGCTTGCCAGCTCCTCCTCCACAGCCTCTTTCCCGTCCCGAGGATGG
GCAACTCGGCCTCGAACATCGTCAGCCCCAGGAGGCCTTGCCGGCCGGAAGGAACAGACCCTGTAGC
GGCCAAACATCATGTCAATGGCAACAGAACAGTCGAACCTTTCCAGAGGGAACACAGATGGCTGTATT
GAAAAAAGTGGCCATGCAGAAGTCGTCGAGTGGTGTACCAGCCAGAACACATGAGTTTTGAGGAAGTGC
TCAAGTCTTCTGGGAGAATCACGACCCGACCCAAGGTATGCGCCAGGGGAACGACCATGGCACTCAGTA
CCGCTCGGCCATCTACCGACCTCTGCCAAGCAATGGAGGCAGCCCTGAGCTCCAAGAGAAGTACCAA
AAGGTTCTTTAGAGCACGGCTTCGGCCCCATCACTACCGACATCCGGGAGGGACAGACTTTCTACTATG
CGGAAGACTACCACAGCAGTACCTGAGCAAGAACCCCAATGGCTACTGCGGCCTTGGGGCACCCGGCGT
GTCCTGCCAGTGGGTATTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:	>RG227449 representing NM_001135670 Red=Cloning site Green=Tags(s)
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MLSATRRACQLLLLHSLFPVPRMGNSASNIIVSPQEALPGRKEQTPVAAKHHVNGNRTVEPFPEGTQMAVF
EKTGHAEVVRVVYQPEHMSFEELLKVFWENHDPTQGMRQNDHGTQYRSIYPTSAKQMEALSSKENYQ
KVLSEHGFGPITTDIREGQTFYYAEDYHQYLSKNPNGYCGLGGTGVSCPVGIIK

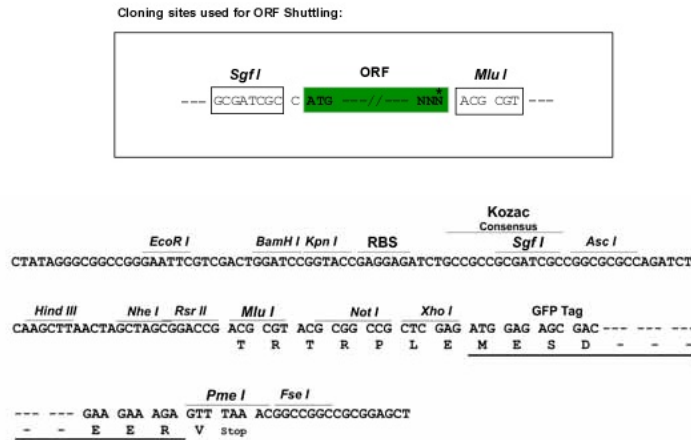
TRTRPLE - GFP Tag - V

Restriction Sites:	Sgfl-MluI
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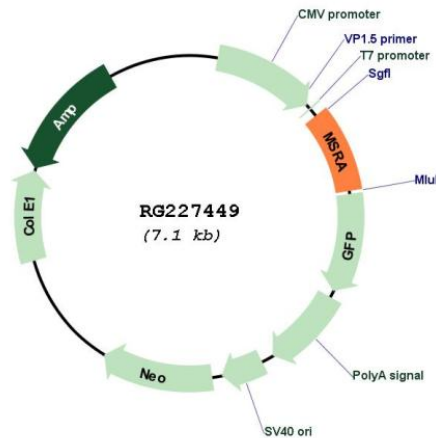


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Cloning Scheme:



Plasmid Map:



ACCN: NM_001135670

ORF Size: 585 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:

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: [NM_001135670.3](#)

RefSeq Size: 1372 bp

RefSeq ORF: 588 bp

Locus ID: 4482

UniProt ID: [Q9UJ68](#)

Cytogenetics: 8p23.1

Gene Summary: 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]