

## Product datasheet for **RG209609**

### Macrophage Scavenger Receptor I (MSR1) (NM\_138715) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Macrophage Scavenger Receptor I (MSR1) (NM_138715) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Macrophage Scavenger Receptor I
Synonyms:	CD204; phSR1; phSR2; SCARA1; SR-A; SR-AI; SR-AII; SR-AIII; SRA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209609 representing NM\_138715  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCAGTGGGATCACTTTCACAATCAACAGGAGGACACTGATAGCTGCTCCGAATCTGTGAAATTTG  
 ATGCTCGCTCAATGACAGCTTTCCTCCGAATCCTAAAAACAGCCCTTCCCTTCAAGAGAACTGAA  
 GTCCTTCAAAGCTGCACTGATTGCCCTTACCTCCTCGTGTTCAGTTCTCATCCCTCTCATTGGAATA  
 GTGGCAGCTCAACTCCTGAAGTGGGAAACGAAGAATTGCTCAGTTAGTTCAACTAATGCAAAATGATATA  
 CTCAAAGTCTCACGGGAAAAGGAAATGACAGCGAAGAGGAAATGAGATTTCAAGAAGTCTTTATGGAACA  
 CATGAGCAACATGGAGAAGAGAATCCAGCATATTTAGACATGGAAGCCAACCTCATGGACACAGAGCAT  
 TTCCAAAATTTGAGCATGACAACCTGATCAAGATTTAATGACATTCCTCTGCAGCTAAGTACCTGTTTT  
 CCTCAGTCCAGGACATGGGAATGCAATAGATGAAATCTCCAAGTCTTAATAAGTTTGAATACCACATT  
 GCTTGATTTGCAGCTCAACATAGAAAATCTGAATGGCAAAATCCAAGAGAATACCTTCAAACAACAAGAG  
 GAAATCAGTAAATTAGAGGAGCGTGTACAATGTATCAGCAGAAATTATGGCTATGAAAGAAGAACAAG  
 TGCATTTGGAACAGGAAATAAAAGGAGAAGTGAAGTACTGAATAACATCACTAATGATCTCAGACTGAA  
 AGATTGGGAACATTCTCAGACCTTGAGAAATATCACTTTAATTCAAGGTCTCCTGGACCCCGGGTGAA  
 AAAGGAGATCGAGGTCCCACTGGAGAAAGTGGTCCACGAGGATTTCCAGGTCCAATAGGTCTCCGGGTC  
 TAAAGGTGATCGGGGAGCAATTGGCTTTCCTGGAAGTCGAGGACTCCAGGATATGCCGGAAGGCCAGG  
 AAATCTGGACCAAAAAGGCCAGAAAGGGGAAAAGGGGAGTGGAAACACATTAACCTCATTACGAAAAGTT  
 CGACTGGTCCGGTGGGAGCGCCCTCACGAGGGGAGAGTGGAGATACTCCACAGCGCCAGTGGGGTACAA  
 TTTGTGACGATCGCTGGGAAGTGGCGCTTGACAGGCTCGTCTGTAGGAGCTTGGGATACCCAGGTGTTCA  
 AGCCGTGCACAAGGCAGCTCACTTTGGACAAGGTACTGGTCCAATATGGCTGAATGAAGTGTGTTTT  
 GGGAGAGAATCATCTATTGAAGAATGAAAATTCGGCAATGGGGACAAGAGCCTGTTACATTCTGAAG  
 ATGCTGGAGTCACTTGCACTTTA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

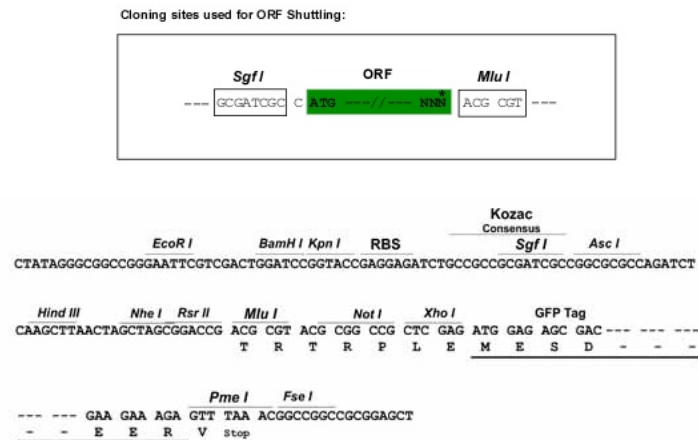
>RG209609 representing NM\_138715  
 Red=Cloning site Green=Tags(s)

MEQWDFHFNQEDTDCSSESVKFDARSMTALLPPNPKNSPSLQEKLKSFKAALIALYLLVFAVLIPLIGI  
 VAAQLLKWETKNCSVSSTNANDITQSLTGKGNDSSEEMRFQEVFMEHMSNMEKRIQHILDMEANLMDTEH  
 FQNFSTTDQRFNDILLQLSTLFSSVQGHGNAIDEISKSLISLNTLLDLQLNIENLNGKIQENTFKQQE  
 EISKLEERVYVNSAEIMAMKEEQVHLEQEIKGEVKVLNNTDNLRLKDWEHSQTLRNITLIQPPGPPGE  
 KGDGPTGESGPRGFPPIGPPGLKDRGAI GPPGSRGLPGYAGRPNGSGPKGQKGEKSGNTLTPFTKV  
 RLVGGSGPHEGRVEILHSGQWGTICDDRWEVRVGVVCRSLGYPGVQAVHKA AHFGQGTGPIWLNVEVFCF  
 GRESSIEECKIRQWGTTRACSHSEDAGVTCTL

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_138715

**ORF Size:** 1353 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\\_138715.2](#), [NP\\_619729.1](#)

**RefSeq Size:** 3761 bp

**RefSeq ORF:** 1356 bp

**Locus ID:** 4481

**UniProt ID:** [P21757](#)

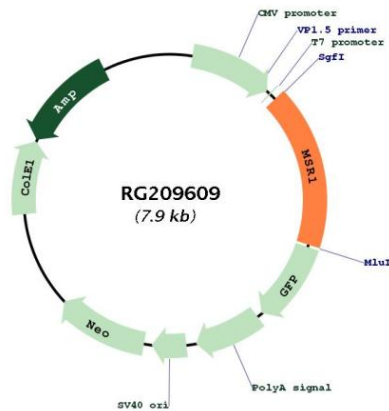
**Cytogenetics:** 8p22

**Domains:** SR, Macscav\_rec, Collagen

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:** This gene encodes the class A macrophage scavenger receptors, which include three different types (1, 2, 3) generated by alternative splicing of this gene. These receptors or isoforms are macrophage-specific trimeric integral membrane glycoproteins and have been implicated in many macrophage-associated physiological and pathological processes including atherosclerosis, Alzheimer's disease, and host defense. The isoforms type 1 and type 2 are functional receptors and are able to mediate the endocytosis of modified low density lipoproteins (LDLs). The isoform type 3 does not internalize modified LDL (acetyl-LDL) despite having the domain shown to mediate this function in the types 1 and 2 isoforms. It has an altered intracellular processing and is trapped within the endoplasmic reticulum, making it unable to perform endocytosis. The isoform type 3 can inhibit the function of isoforms type 1 and type 2 when co-expressed, indicating a dominant negative effect and suggesting a mechanism for regulation of scavenger receptor activity in macrophages. [provided by RefSeq, Jul 2008]

**Product images:**



Circular map for RG209609