

Product datasheet for **RG223314**

Macrophage Scavenger Receptor I (MSR1) (NM_138716) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Macrophage Scavenger Receptor I (MSR1) (NM_138716) 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)
ORF Nucleotide Sequence:	>RG223314 representing NM_138716 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGCAGTGGGATCACTTTCACAATCAACAGGAGGACTGATAGCTGCTCCGAATCTGTGAAATTTG
ATGCTCGCTCAATGACAGCTTTGCTTCTCCGAATCCTAAAAACAGCCCTTCCCTCAAGAGAACTGAA
GTCCTTCAAAGCTGCACTGATTGCCCTTACCTCCTCGTGTGGCAGTTCTCATCCCTCATTGGAATA
GTGGCAGTCAACTCCTGAAGTGGGAAACGAAGAATTGCTCAGTTAGTTCAACTAATGCAATGATATAA
CTCAAAGTCTCACGGGAAAAGGAAATGACAGCGAAGAGGAAATGAGATTTCAAGAAGTCTTTATGGAACA
CATGAGCAACATGGAGAAGAGAATCCAGCATATTTAGACATGGAAGCCAACCTCATGGACACAGAGCAT
TTCCAAAATTTTCAGCATGACAACGATCAAGATTTAATGACATTCCTTCTGCAGCTAAGTACCTTGTTTT
CCTCAGTCCAGGGACATGGGAATGCAATAGATGAAATCTCCAAGTCTTAATAAGTTTGAATACCACATT
GCTTGATTTGCAGCTCAACATAGAAAATCTGAATGGCAAAATCCAAGAGAATACCTTCAAACAACAAGAG
GAAATCAGTAAATTAGAGGAGCGTGTACAATGTATCAGCAGAAATTATGGCTATGAAAGAAGAACAAG
TGCATTTGGAACAGGAAATAAAAGGAGAAGTAAAAGTACTGAATAACATCACTAATGATCTCAGACTGAA
AGATTGGGAACATTCTCAGACCTTGAGAAAATACACTTTAATCAAGTCTCCTGGACCCCGGGTGAA
AAAGGAGATCGAGTCCCCTGGAGAAAAGTGGTCCACGAGGATTTCCAGTCCAATAGGTCTCCGGGTC
TTAAAGGTGATCGGGGAGCAATTGGCTTTCCTGGAAGTCGAGGACTCCAGGATATGCCGGAAGGCCAGG
AAATTCTGGACAAAAGGCCAGAAAGGGGAAAAGGGGAGTGGAAACACATTAAGTACTGGTCCAATATGG
CTGAATGAAGTGTGTTTTGTTGGGAGAGAATCATCTATTGAAGAATGAAAATTCGGCAATGGGGACAA
GAGCTGTTACATTCTGAAGATGCTGGAGTCACTTGCACTTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223314 representing NM_138716
 Red=Cloning site Green=Tags(s)

MEQWDHFHNQEDTDCSESVKFDARSMTALLPPNPKNSPSLQEKLSFKAALIALYLLVFAVLIPLIGI
 VAAQLLKWETKNCSVSSTNANDITQSLTGKGNDSSEEMRFQEVFMEHMSNMEKRIQHILDMEANLMDTEH
 FQNFSMTTDQRFNDILLQLSTLFSVQGHGNAIDEISKSLISLNTLLDLQLNIENLNGKIQENTFKQQE
 EISKLEERVYNSAEIMAMKEEQVHLEQEIKGEVKVLNNITNDLRLKDWHSQTLRNITLIQGPFGPPGE
 KGDRGPTGESGPRGFPPIGPPGLKGDRAIGFPGSRGLPGYAGRPGNSGPKGQKGEKSGNTLSTGPIW
 LNEVFCGRESSIEECKIRQWGTRACSHSEDAGVTCTL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_138716

ORF Size: 1164 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_138716.2](#)

RefSeq Size: 3493 bp

RefSeq ORF: 1167 bp

Locus ID: 4481

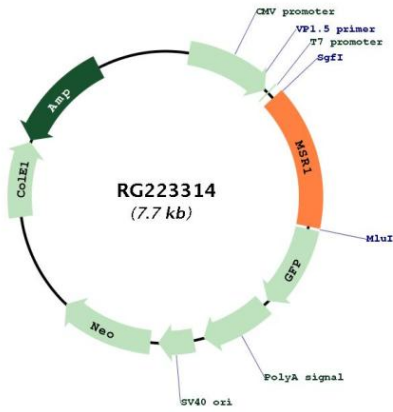
UniProt ID: [P21757](#)

Cytogenetics: 8p22

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 RG223314