

## Product datasheet for RC212931

### Macrophage Scavenger Receptor I (MSR1) (NM\_002445) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Macrophage Scavenger Receptor I (MSR1) (NM_002445) Human Tagged ORF Clone
Tag:	Myc-DDK
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-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212931 representing NM_002445 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCAGTGGGATCACTTTCACAATCAACAGGAGGACTGATAGCTGCTCCGAATCTGTGAAATTTG  
ATGCTCGCTCAATGACAGCTTTGCTTCTCCGAATCCTAAAAACAGCCCTTCCCTCAAGAGAACTGAA  
GTCCTTCAAAGCTGCACTGATTGCCCTTACCTCCTCGTGTGGCAGTTCTCATCCCTCATTGGAATA  
GTGGCAGTCAACTCCTGAAGTGGGAAACGAAGAATTGCTCAGTTAGTTCAACTAATGCAATGATATAA  
CTCAAAGTCTCACGGGAAAAGGAAATGACAGCGAAGAGGAAATGAGATTTCAAGAAGTCTTTATGGAACA  
CATGAGCAACATGGAGAAGAGAATCCAGCATATTTTAGACATGGAAGCCAACCTCATGGACACAGAGCAT  
TTCCAAAATTTTCAGCATGACAACGATCAAAGATTTAATGACATTCCTTCTGCAGCTAAGTACCTGTGTTT  
CCTCAGTCCAGGGACATGGGAATGCAATAGATGAAATCTCCAAGTCTTAATAAGTTTGAATACCACATT  
GCTTGATTTGCAGCTCAACATAGAAAATCTGAATGGCAAAATCCAAGAGAATACCTTCAAACAACAAGAG  
GAAATCAGTAAATTAGAGGAGCGTGTACAATGTATCAGCAGAAATATGGCTATGAAAGAAGAACAAG  
TGCATTTGGAACAGGAAATAAAAGGAGAAGTAAAAGTACTGAATAACATCACTAATGATCTCAGACTGAA  
AAGGAGATCGAGTCCCCTGGAGAAAGTGGTCCACGAGGATTTCCAGTCCAATAGGTCTCCGGGTC  
TTAAAGGTGATCGGGGAGCAATTGGCTTTCCTGGAAGTCGAGGACTCCAGGATATGCCGGAAGGCCAGG  
AAATCTGGACAAAAGGCCAGAAAGGGGAAAAGGGGAGTGGAAACACATTAAGACCAGTACAACCTCACT  
GATCATATTAGGGCAGGGCCCTCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

**Protein Sequence:** >RC212931 representing NM\_002445  
Red=Cloning site Green=Tags(s)

MEQWDHFHNQEDTDCSESVKFDARSMTALLPPNPKNSPSLQEKLKSFKAALIALYLLVFAVLIPLIGI  
 VAAQLLKWETKNCSVSSTNANDITQSLTGKGNDSSEEMRFQEVFMEHMSNMEKRIQHILDMEANLMDTEH  
 FQNFSMTTDQRFNDILLQLSTLFSVQVGHGNAIDEISKSLISLNTLLDLQLNIENLNGKIQENTFKQQE  
 EISKLEERVYVNSAEIMAMKEEQVHLEQEIKEVVKVLENNITNDLRLKDWESQTLRNITLIQGPAGPPGE  
 KGDRGPTGESGPRGPGPIGPPGLKGDRAIGFPGSRGLPGYAGRPGNSGPKGQKGEKGSNTLRPVQLT  
 DHIRAGPS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6504\\_h07.zip](https://cdn.origene.com/chromatograms/mk6504_h07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_002445

**ORF Size:** 1074 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\\_002445.4](#)

**RefSeq Size:** 2823 bp

**RefSeq ORF:** 1077 bp

**Locus ID:** 4481

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

**Cytogenetics:** 8p22

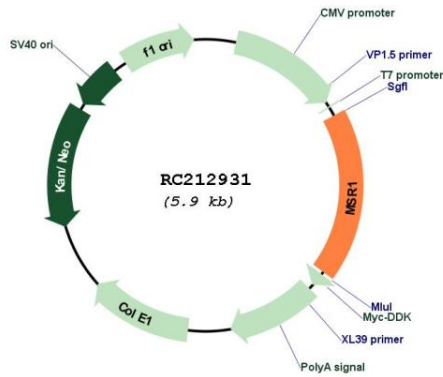
**Domains:** Macscav\_rec, Collagen

**Protein Families:** Druggable Genome, Transmembrane

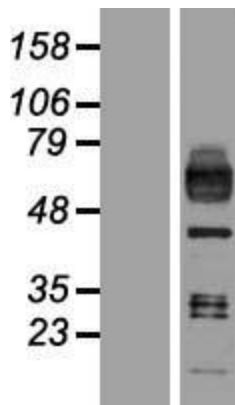
**MW:** 39.4 kDa

**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]

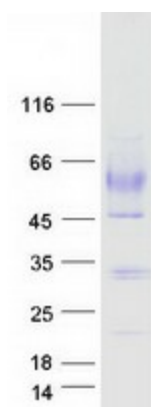
Product images:



Circular map for RC212931



Western blot validation of overexpression lysate (Cat# [LY419319]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212931 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MSR1 protein (Cat# [TP312931]). The protein was produced from HEK293T cells transfected with MSR1 cDNA clone (Cat# RC212931) using MegaTran 2.0 (Cat# [TT210002]).