MSR1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MSR1, Polyclonal Antibody
Full Product Name	MSR1 Antibody, HRP conjugated
Product Gene Name	anti-MSR1 antibody
Product Synonym Names	Macrophage scavenger receptor types I and II; Macrophage acetylated LDL receptor I and II; Scavenger receptor class A member 1; CD204; MSR1; SCARA1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: MSR1 (MBS7048688) HRP Conjugated Antibody: MSR1 (MBS7048689)
Molecular Weight	42,942 Da
OMIM	D90187 mRNA
3D Structure	ModBase 3D Structure for P21757
Immunogen	Recombinant human Macrophage scavenger receptor types I and II protein (271-446AA)
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, PH 7.4
Conjugation	HRP
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-20441 / sc-20660
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MSR1 antibody	ELISA (EIA)
Related Product Information for anti-MSR1 antibody	Membrane glycoproteins implicated in the pathologic deposition of cholesterol in arterial walls during atherogenesis. Two types of receptor subunits exist. These receptors mediate the endocytosis of a diverse group of macromolecules, including modified low density lipoproteins (LDL). Isoform III does not internalize acetylated LDL.
Other Notes	Small volumes of anti-MSR1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MSR1 purchase	MBS7048689 is an antibody targeting MSR1. Also known as MSR1 Antibody, HRP conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MSR1. It may not necessarily be applicable to this product.

NCBI GI #	4505259
NCBI GeneID	4481
NCBI Accession #	NP_002436.1
UniProt Primary Accession #	P21757
UniProt Secondary Accession #	O60505; P21759; Q45F10; D3DSP3
UniProt Related Accession #	P21757
GenBank Nucleotide #	NM_002445.3
NCBI Official Full Name	macrophage scavenger receptor types I and II isoform type 2
NCBI Official Synonym Full Names	macrophage scavenger receptor 1
NCBI Official Symbol	MSR1
NCBI Official Synonym Symbols	SRA; SR-A; CD204; phSR1; phSR2; SCARA1
UniProt Protein Name	Macrophage scavenger receptor types I and II
UniProt Synonym Protein Names	Macrophage acetylated LDL receptor I and II; Scavenger receptor class A member 1; CD_antigen: CD204
Protein Family	Macrophage scavenger receptor
UniProt Gene Name	MSR1
UniProt Synonym Gene Names	SCARA1
UniProt Entry Name	MSRE_HUMAN
NCBI Protein Information	macrophage scavenger receptor types I and II
NCBI Summary for MSR1	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]

UniProt Comments for MSR1	MSR1: Membrane glycoproteins implicated in the pathologic deposition of cholesterol in arterial walls during atherogenesis. Two types of receptor subunits exist. These receptors mediate the endocytosis of a diverse group of macromolecules, including modified low density lipoproteins (LDL). Isoform III does not internalize actetylated LDL. Defects in MSR1 may be a cause of prostate cancer (PC). A malignancy originating in tissues of the prostate. Most prostate cancers are adenocarcinomas that develop in the acini of the prostatic ducts. Other rare histopathologic types of prostate cancer that occur in approximately 5% of patients include small cell carcinoma, mucinous carcinoma, prostatic ductal carcinoma, transitional cell carcinoma, squamous cell carcinoma, basal cell carcinoma, adenoid cystic carcinoma (basaloid), signet- ring cell carcinoma and neuroendocrine carcinoma. MSR1 variants may play a role in susceptibility to prostate cancer. MSR1 variants have been found in individuals with prostate cancer and co-segregate with the disease in some families. Defects in MSR1 may be a cause of Barrett esophagus (BE). A condition characterized by a metaplastic change in which normal esophageal squamous epithelium is replaced by a columnar and intestinal-type epithelium. Patients with Barrett esophagus have an increased risk of esophageal adenocarcinoma. The main cause of Barrett esophagus is gastroesophageal reflux. The retrograde movement of acid and bile salts from the stomach into the esophagus causes prolonged injury to the esophageal epithelium and induces chronic esophagitis, which in turn is believed to trigger the pathologic changes. Genetic variants in MSR1 have been found in individuals with Barrett esophagus and are thought to contribute to disease susceptibility. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Membrane protein, integral Chromosomal Location of Human Ortholog: 8p22 Cellular Component: integral to plasma membrane; plasma membrane Molecular Function: low-density lipoprotein binding; protein binding Biological Process: cholesterol transport; receptor-mediated endocytosis Disease: Barrett Esophagus; Prostate Cancer
Research Articles on MSR1	**1.** We also demonstrate that across the human genome, the presence of MSR1 repeats in the promoters or first introns of genes is associated with greater population variability in gene expression indicating that copy number variation of MSR1s is a generic controller of gene expression and promises to provide new insights into our understanding of gene expression regulation
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