

RP01033

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Recombinant Human MSR1/CD204 Protein

Catalog No.: RP01033

Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	4481	P21757

Tags

C-His

Synonyms

CD204; SCARA1; SR-A; SR-AI; SR-AII; SR-AIII; SRA; phSR1; phSR2; MSR1; SCARA1; SR-A; SR-AI; SR-AII; SR-AIII; SRA; phSR1; phSR2

Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

This protein is 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.

Basic Information

Description

Recombinant Human MSR1/CD204 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Lys77-Leu451) of human CD204 (Accession #NP_619729.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human MSR1 Protein at 1 μg/mL (100 μL/well) can bind MSR1 Rabbit pAb with a linear range of 0.76-2.88 ng/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized Human A-I/APOA1 at 5 μg/mL (100 μL/well) can bind Human MSR1/CD204 with a linear range of 1-49.4 ng/mL.

Storage

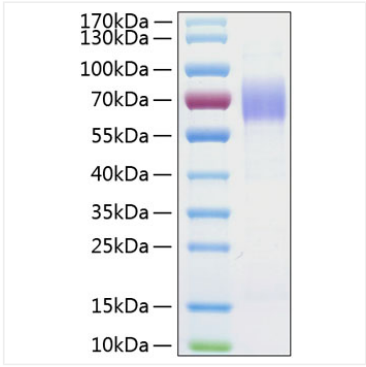
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

Contact

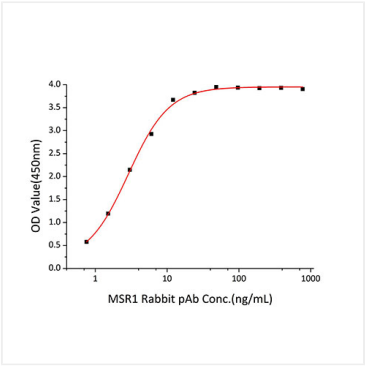


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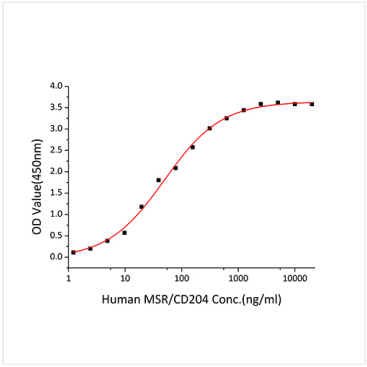
Validation Data



Recombinant Human MSR1/CD204 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 60-80 kDa.



Immobilized recombinant Human MSR1 Protein at 1μg/mL (100 μL/well) can bind MSR1 Rabbit pAb with a linear range of 0.76-2.88 ng/mL.



Immobilized Human A-I/APOA1 at 5μg/mL (100 μL/well) can bind Human MSR1/CD204 with a linear range of 1-49.4ng/mL.