

PRODUCT INFORMATION



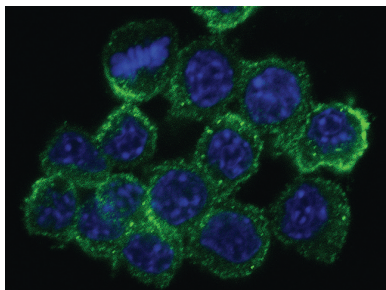
MSR1/CD204 Rabbit Monoclonal Antibody (Clone 004)

Item No. 38090

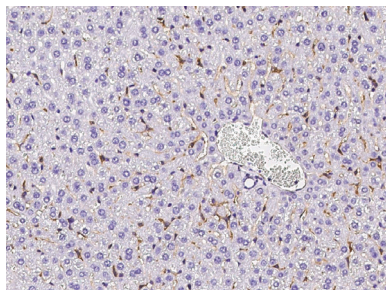
Overview and Properties

Contents: 50 or 100 µl of protein A-affinity purified monoclonal antibody
Synonyms: CD204, Macrophage Scavenger Receptor 1, SCARA1, SR-A
Immunogen: Recombinant mouse MSR1
Cross Reactivity: (+) MSR1
Species Reactivity: (+) Mouse; other species not tested
Form: Liquid
Storage: -80°C (as supplied)
Stability: ≥1 year
Storage Buffer: 0.2 µm filtered solution in PBS
Clone: 004
Host: Rabbit
Isotype: IgG
Applications: Flow Cytometry (FC), Immunocytochemistry (ICC), Immunofluorescence (IF), and Immunohistochemistry paraffin (IHC-P); the recommended starting dilution is 1:25-1:100 for FC, 1:50-1:1,000 for ICC and IF, and 1:50-1:200 for IHC-P. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

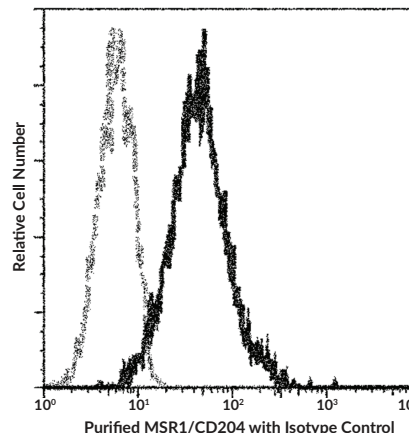
Images



Immunofluorescent staining of mouse MSR1 in RAW 264.7 cells. Cells were fixed with 4% paraformaldehyde (PFA), blocked with 10% serum, and incubated with MSR1/CD204 Rabbit Monoclonal Antibody (Clone 004) (1:100) at 4°C overnight. Then, cells were stained with an Alexa Fluor® 488-conjugated goat anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to the plasma membrane.



Immunohistochemical staining of mouse MSR1 in formalin-fixed and paraffin-embedded mouse liver using MSR1/CD204 Rabbit Monoclonal Antibody (Clone 004) at a dilution



Flow cytometric analysis of MSR1/CD204 Rabbit Monoclonal Antibody expression on RAW 264.7 cells. Cells were stained with purified MSR1/CD204 Rabbit Monoclonal Antibody (Clone 004), then a FITC-conjugated secondary antibody. The fluorescence histogram was derived from gated events with the forward and side light-scatter characteristics of intact cells.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Macrophage scavenger receptor 1 (MSR1), also known as CD204, is a homotrimeric transmembrane glycoprotein and class A scavenger receptor with roles in innate and adaptive immunity, and various pathophysiological processes, including non-alcoholic fatty liver disease (NAFLD).^{1,2} It is primarily expressed on the surface of macrophages and dendritic cells but is also present on the surface of lymphocytes.² MSR1 binds to a variety of ligands, including apolipoprotein E (ApoE), LDL, type III collagen, cholesterol, apoptotic cells, and pathogens, and induces intracellular signaling in a ligand-specific manner, to mediate phagocytosis, endocytosis, and lipid uptake. Levels of MSR1 are increased and associated with the incidence of hepatic steatosis, cirrhosis, and hepatocellular carcinoma in patients with NAFLD. An increased population of MSR1⁺ tumor-associated macrophages (TAMs) in tumor stroma compared with the primary tumor is correlated with poor prognosis and shorter survival time in patients with non-small cell lung cancer (NSCLC), uterine cervical adenocarcinoma, glioma, or muscle-invasive bladder cancer.¹ Cayman's MSR1/CD204 Rabbit Monoclonal Antibody (Clone 004) can be used for flow cytometry (FC), immunocytochemistry (ICC), immunofluorescence (IF), and immunohistochemistry immunohistochemistry paraffin (IHC-P) applications.

References

1. Gudgeon, J., Marín-Rubio, J.L., and Trost, M. The role of macrophage scavenger receptor 1 (MSR1) in inflammatory disorders and cancer. *Front. Immunol.* **13**, 1012002 (2022).
2. Sheng, W., Ji, G., and Zhang, L. Role of macrophage scavenger receptor MSR1 in the progression of non-alcoholic steatohepatitis. *Front. Immunol.* **13**, 1050984 (2022).

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