

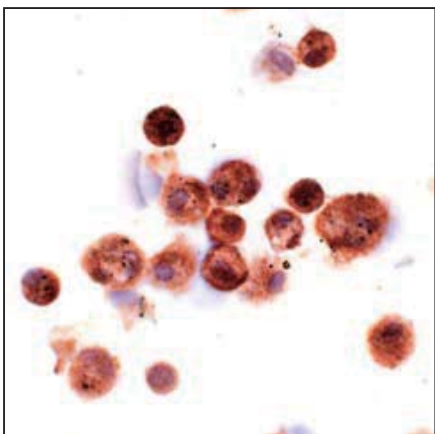
# Macrophage related Antibody

The useful tools for the study of MSR-A in atherogenesis and various other pathological conditions.

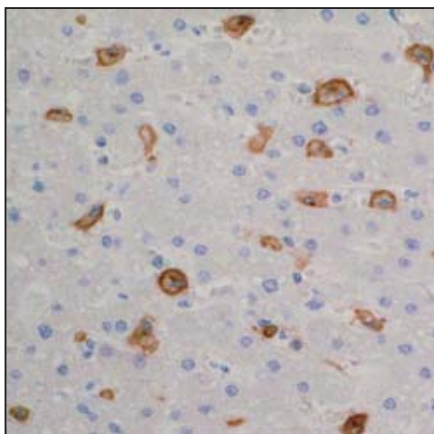
## Anti Human Macrophage Scavenger Receptor A (MSR-A: CD204) Monoclonal Antibody (Clone No.: SRA-C6)

Class A macrophage scavenger receptor (MSR-A: CD204) was identified in the search for the receptor molecules that are implicated in the pathological deposition of cholesterol during atherogenesis through receptor-mediated uptake of modified low density lipoprotein (LDL). MSR-A possesses a wide range of ligand-binding specificities and recognize a variety of molecules such as modified LDL including acetylated LDL, oxidized LDL, advanced glycation end products (AGEs), polyribonucleotides such as poly G and poly I and bacterial surface lipids including lipopolysaccharide and lipoteicoic acid.

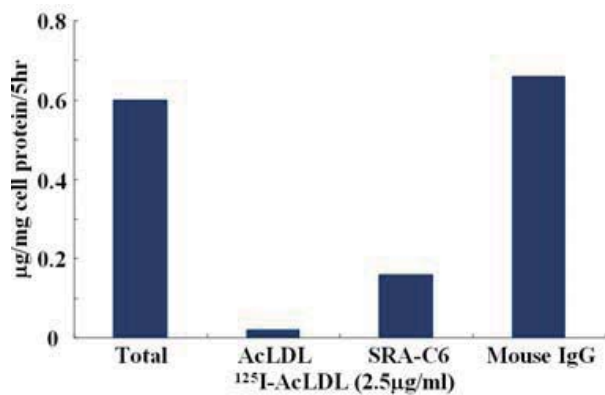
This antiody was produced from the mouse immunized with recombinant protein of human type I MSR-A, and has been proved to be useful for the western blotting and immunohistochemistry. This antibody also inhibits the endocytic degradation of acetylated LDL and oxidized LDL by high glucose-treated human monocyte-derived macrophages and has anti MSR-A neutralizing activity.



Human alveolar macrophages (Cytospin preparation): Most macrophages are positive.



Human liver (paraffin section): Kupffer cells are positive



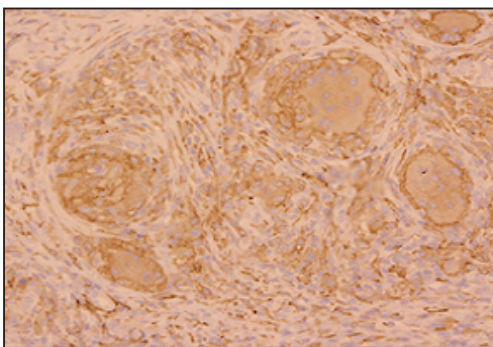
Neutralizing activity of SRA-C6 (20 µg/ml): Inhibitory effect of anti-human SR-A antibody on the degradation of 125IAcLDL by human onocyte-derived macrophages (day7)

Host	Clone	Application	Cat. No.	Size
Mouse	SRA-C6	IHC, WB	KAL-KT118	50 µg
Mouse	SRA-C6	IHC, WB	KAL-KT118-S*	50 µg

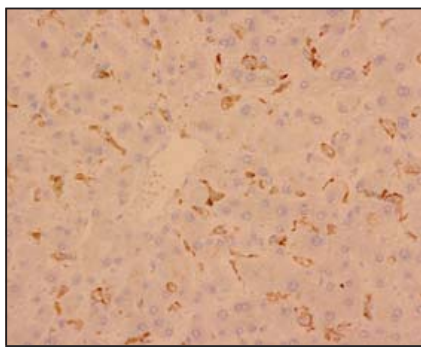
Takeya M, Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan

\* KAL-KT118-S is "additive-free".

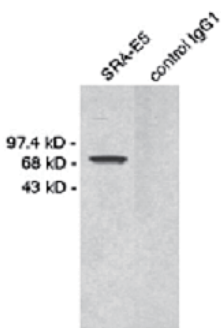
## Anti Human Macrophage Scavenger Receptor A (MSR-A: CD204) Monoclonal Antibody (Clone No.: SRA-E5)



Skin Sarcoidosis (paraffin section) Epithelioid cells and multi-nucleated giant cells in granulomas and surrounding acrophages are positive.



Human liver (paraffin section) Kupffer cells are positively stained.



Western blotting A single band at 72 kD is observed. DTT treated. (sample: lysate of THP-1 cells, a human histiocytic cell line)

Host	Clone	Application	Cat. No.	Size
Mouse	SRA-E5	IHC, WB	KAL-KT022	50 µg

Takeya M, Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan

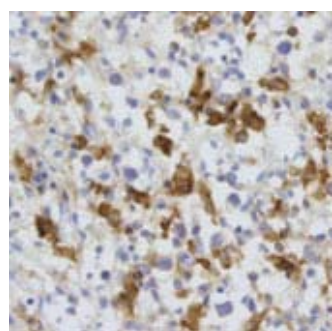
IHC: Immunohistochemistry WB: Westernblotting FCM: Flow Cytometry IP: Immunoprecipitation IC: Immnocytochemistry



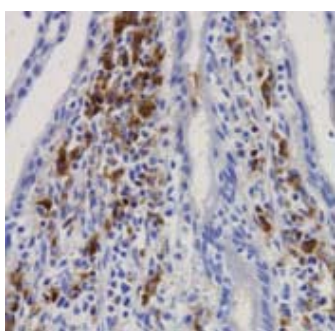
COSMO BIO CO., LTD.  
Inspiration for Life Science

# Macrophage related Antibody

## Anti Human Macrophage Surface Antigen Monoclonal Antibody



Human spleen (frozen section): Red pulp macrophages are positive.



Small Intestine of Guinea Pig (paraffin section): Macrophages in lamina propria are positive.

Macrophages are present in nearly all tissues and organs of the body. They are differentiated from monocytes derived from the bone marrow. Macrophages and monocytes are phagocytes, acting in both innate immunity and cell-mediated immunity of vertebrate animals. Their function is to phagocytize cellular debris and pathogens, and to stimulate lymphocytes and other immune cells to respond to the pathogen. Macrophages are able to be identified immunohistochemically by virtue of the presence of monocyte/macrophage-associated antigens such as CD68. Antibodies recognizing CD68 have been used as some of the best reagents to detect macrophages in tissues.

CD68 is a 110 kDa transmembrane glycoprotein that is highly expressed by human monocytes and tissue macrophages. It is a member of the lysosomal/endosomal-associated membrane glycoprotein (LAMP) family.

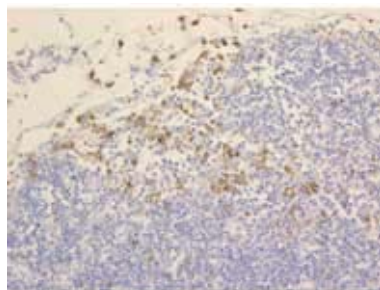
This antibody recognizes CD68 antigen. The molecular size of the antigen identified

by this antibody was 110 kDa. Immunoprecipitated antigen by this antibody was also recognized by the other CD68 antibodies such as KP-1 and PG-M1. In immunohistochemical assays, this antibody recognizes freshly isolated human blood monocytes and tissue macrophages. This antibody also recognizes macrophages obtained from guinea pigs, pigs, bovine species, and monkeys. Since this antibody strongly labels guinea pig macrophages, this antibody will be suitable to examine such macrophages in experimental guinea pig models. This antibody will be very useful to research of CD68, macrophage, allergic diseases and delayed hypersensitivity.

Host	Clone	Application	Cat. No.	Size
Mouse	PM-1K	IHC	KAL-KT117	50 µg

Takeya M, Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan

## Anti Human Macrophage Surface Antigen Monoclonal Antibody



Human lymph node (paraffin section)

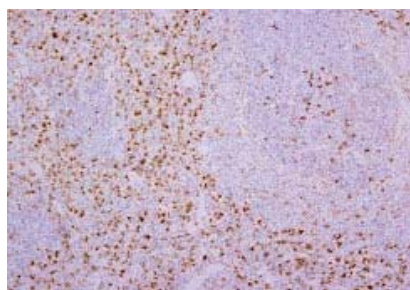
Macrophages in marginal sinus are positively stained.

Takeya M, Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan

This antibody AM-3K reacts intensely with most of macrophages in lymphoreticular organs and in many other organs and tissues. AM-3K also reacts with the macrophages in many pathological conditions. However, this antibody does not react with dendritic cell population, such as epidermal Langerhans cells, interdigitating cells in the paracortex of lymph nodes, nor follicular dendritic cells. This antibody also reacts monkey, horse, cow etc..

Host	Clone	Application	Cat. No.	Size
Mouse	AM-3K	IHC	KAL-KT013	50 µg

## Anti Rat Macrophage / Dendritic Cells Monoclonal Antibody



Rat spleen ( frozen section)

Macrophages in red pulp and white pulp were positively stained.

Takeya M, Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan

This antibody RM-4 is very useful for not only in discriminating macrophage/dendritic cells from various cell populations but also in identifying endosomes and lysosomes.

Host	Clone	Application	Cat. No.	Size
Mouse	RM-4	IHC	KAL-KT014	50 µg

## Anti Rabbit Macrophage / Monocyte Monoclonal Antibody



Rabbit Liver

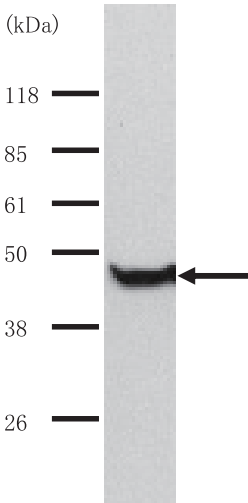
(frozen section): Kupffer cells are positively stained.

Takeya M, Department of Cell Pathology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan

This anti-rabbit macrophage monoclonal antibody, RbM2, was produced by using thioglycate-elicited rabbit peritoneal macrophages as immunogen. The antigen recognized by RbM2 is a lysosomal membrane protein with 50,000 molecular weight. Thus, this antibody is very useful for not only in discriminating monocyte / macrophages from various cell populations but also in identifying lysosomes and their related structures in macrophages.

Host	Clone	Application	Cat. No.	Size
Mouse	RbM2	IHC	KAL-KT015	50 µg

## Anti CapG (macrophage-capping protein) Polyclonal Antibody



Western blotting  
Sample: Human fibroblast extract

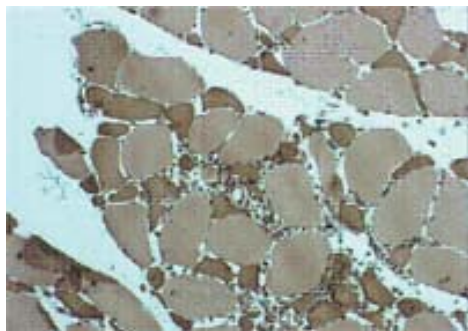
Dr. Yutsudo, M At Research Institute for Microbial Diseases, Osaka University Japan

Host	Clone	Application	Cat. No.	Size
Rabbit	-	WB	KAL-KR089	25 µg



# Inflammation Antibody

## Anti Human Chemokine-like factor 1 Polyclonal Antibody



Sample :  
biopsied muscle of a patient  
with multiple myositis

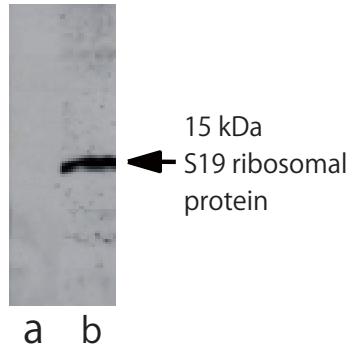
Drs. Kobayashi S. and Nagai A.  
at Department of Internal  
Medicine III, Shimane Medical  
University

Chemokine is a member of cytokines (interleukin, interferon etc.) and is known to activate chemokinesis of leukocytes. Chemokine-like factor 1 (CKLF1) is a novel chemokine and expressed on various types of tissue.

Host	Clone	Application	Cat. No.	Size
Rabbit	-	IHC	KAL-KR072	25 µg

## Anti S19 Ribosomal Protein Polyclonal Antibody

Detecting S19 protein in  
HepG2 Cell Homogenate

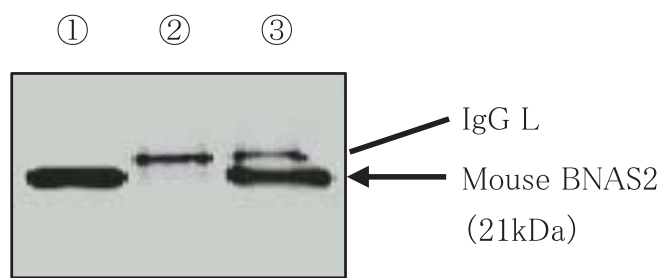


a: Non immuned rabbit antibody  
b: Anti S19 ribosomal protein antibody

S19 Ribosomal protein consists of 145 amino acids with a predicted molecular weight of 16 kDa. The crosslinked homo-dimer from apoptosis cells has been proved to exhibit the monocyte chemotactic activity. Also it is related with rheumatoid arthritis. This antibody was purified from the serum of the rabbit immunized with S19 recombinant protein, and has been proved to be useful for the immunoblotting.

Host	Clone	Application	Cat. No.	Size
Rabbit	-	ELISA,WB	KAL-KY008	100 µg

## Anti Mouse BNAS2 (BASH N terminus associated protein 2) Polyclonal Antibody



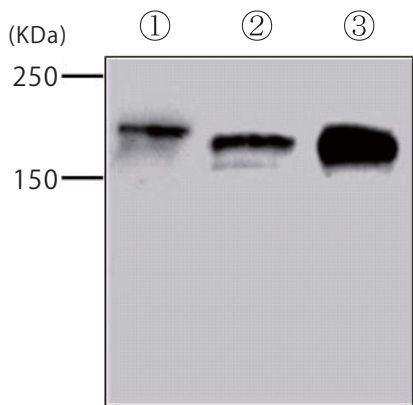
### Western Blotting (After Immunoprecipitation)

Sample:  
Extracts from COS7 cells transfected with expression vectors for T7-tagged mouse BNAS2  
① Extracts  
② Extracts immunoprecipitated with rabbit IgG  
③ Extracts immunoprecipitated with mouseBNAS2 Ab

Imamura Y, Kitamura D Division of Molecular Biology, Research Institute for Biological Science, Tokyo University of Science

Host	Clone	Application	Cat. No.	Size
Rabbit	-	WB, IP, IC	KAL-KR093	25 µg

## Anti Mouse CIBZ Polyclonal Antibody

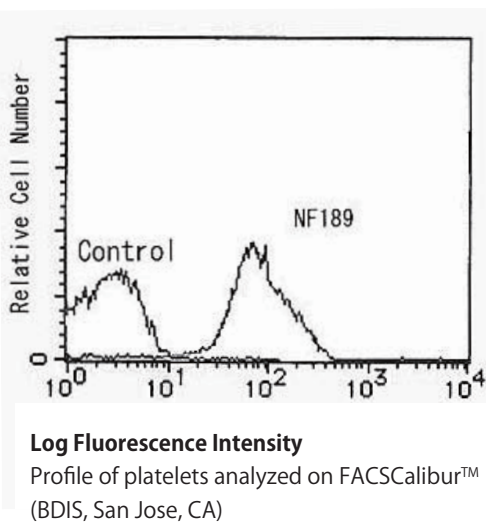


**Western blotting**  
Sample: ① Myc-CIBZ protein  
② mouse brain lysate  
③ mouse kidney lysate

Dr. Kawaichi M. at Division of Gene Function in Animals, Graduate School of Biological Sciences, Nara Institute of Science and Technology

Host	Clone	Application	Cat. No.	Size
Rabbit	-	WB	KAL-KR103	100 µg

## Anti Human CD36 Monoclonal Antibody

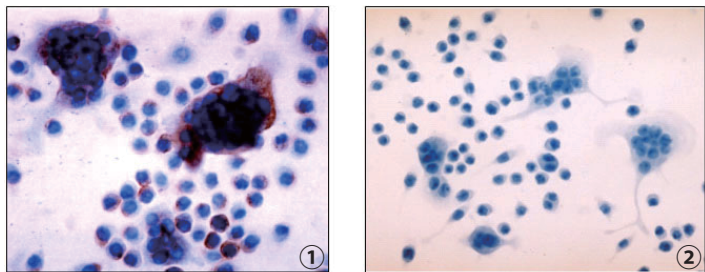


CD36 is single-strand glycoprotein with molecular weight of 88 kDa, and is known to limited versatility receptor. This antibody has been proved to be useful for flow cytometry with high affinity.

Host	Clone	Application	Cat. No.	Size
Mouse	NF189	FCM	KAL-KS017	50 µg

## Anti Mouse DC-STAMP Polyclonal Antibody

DC-STAMP(FIND):  
Dendritic Cell-Specific Transmembrane Protein (IL-Four Induced)



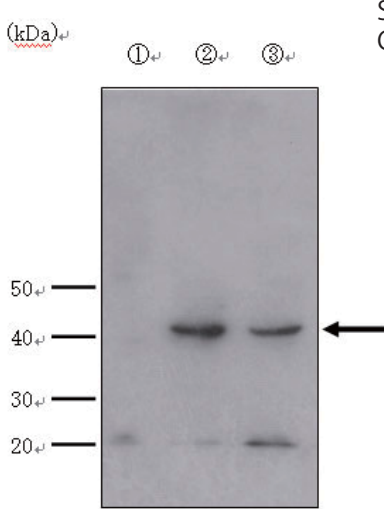
**Immunohistochemistry** Sample : RAW-D cells stimulated with RANKL+TNF- $\alpha$   
① Anti DC-STAMP antibody  
② Control rabbit IgG

Dr. Nomiya H. at Department of Molecular Enzymology, Kumamoto University Graduate school of Medical Sciences

Host	Clone	Application	Cat. No.	Size
Rabbit	-	IHC	KAL-KR104	25 µg

Featured Antibody & Product

Anti Mouse Indoleamine-pyrrole 2,3 dioxygenase (IDO)  
Polyclonal Antibody




Sample:  
CMT-93 mouse rectum-derived cell lysate  
① Additive nothing  
② Interferon-gamma (+)  
③ Interferon-gamma (+), dbcAMP(+)

Preparation of antibodies and instruction:  
Dr. Minatogawa Y. at Department of Biochemistry, Kawasaki Medical School

Host	Clone	Application	Cat. No.	Size
Rabbit	-	WB	KAL-KR101	150 µg

Anti Matrix Gla Protein Polyclonal Antibody  
(Gla: gamma-carboxyglutamic acid)

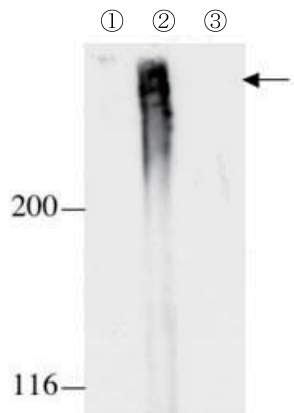


Sample: Mouse Limb (Embryo 14 days)  
(Calcification site and its around mature hypertrophic chondrocyte are positively stained.)

Preparation of antibodies and instruction  
Dr. Mano H. and Dr. Nakatani S. at Department of Clinical Dietetics and Human Nutrition, Faculty of Pharmaceutical Sciences, Josai University

Host	Clone	Application	Cat. No.	Size
Rabbit	-	IHC	KAL-KR083	50 µg

Anti Rat Cubilin Polyclonal Antibody



Endocytic receptors Cubilin and Megalin are colocalized in the renal proximal tubule. Among the ligands are vitamin transcobalamin(TC)-B12, vitamin D-binding protein(DBP), albumin, apolipoprotein(apoA- I ) etc. From the fact renal failure is accompanied by the dysfunction of Cubilin, Cubilin is expected to involve the disease development of kidney. This antibody was established from the purified serum of rabbits immunized with partial peptide of rat Cubilin. This antibody is useful for Western blotting.

Sample: 200 µg /lane  
1) Rat heart lysate (Negative Control)  
2) Rat kidney lysate  
3) Rat liver lysate (Negative Control)

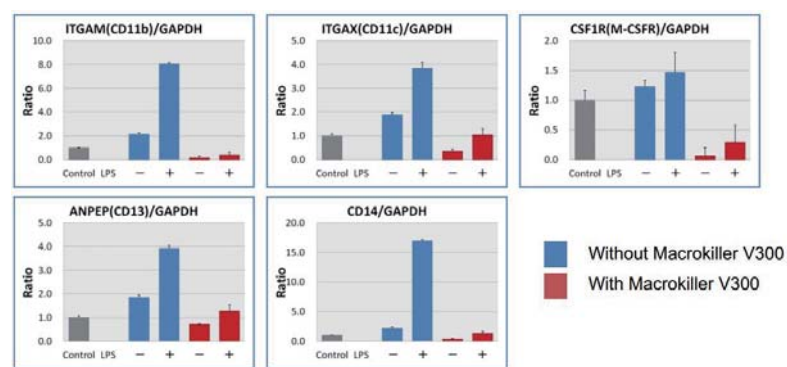
Preparation of antibodies and instruction  
Dr. Akihiko Saito at Department of Applied Molecular Medicine, Dr. Fumitake Gejyo at Biological Functions and Medical Control Homeostatic Regulation and Development, Niigata University Graduate School of Medical and Dental Sciences

Host	Clone	Application	Cat. No.	Size
Rabbit	-	WB	KAL-KR065	25 µg

Macrokiller V300

Macrokiller V300 is liposomes containing clodronic acid, which has the cytotoxic effect of macrophages (e. g. osteoclast and microglia). Due to the low cell permeability by itself, clodronic acid was contained into liposome to increase phagocytic efficiency of macrophages. In recent years, there are reports those macrophages play roles in many kind of diseases such as allergy, Alzheimer's disease and cancer, furthermore, in tissue regeneration. Macrokiller V300 will be a useful tool for researching these diseases by inhibiting macrophage activity.

Description	Cat. No.	Size
Macrokiller V300	PMC-MKV300-COS	1 set (1 mL/vial)



Selective elimination of adipose tissue macrophages from primary rat visceral adipocyte culture. Macrokiller V300 selectively decreases relative mRNA levels of macrophage marker genes.