abcam

ab300100

Alexa Fluor® 647 Anti-CD204 antibody [EPR24403-17]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR24403-17
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/50
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information MSR1

Function	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) (PubMed:2251254). Isoform III does not internalize acetylated LDL (PubMed:9548586).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle, Store in the dark

Notes

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD204 also known as MSR1 or the macrophage scavenger receptor 1 is a class A scavenger receptor. It has a molecular mass of approximately 80-85 kDa. CD204 is mainly expressed on the surface of macrophages as well as some dendritic cells. This receptor plays a role in mediating the endocytosis of various polyanionic molecules such as modified low-density lipoproteins. CD204 serves as a recognition site for apoptotic cells signaling molecules and some types of bacteria.

Biological function summary	CD204 influences inflammatory responses and lipid metabolism. It does not function alone but as part of a complex involving several other molecules like pattern recognition receptors. CD204 recognizes and binds to modified lipoproteins and is significant in processes like phagocytosis and clearance of cellular debris. Its activity affects immune response modulation and can influence atherosclerosis development by its interaction with oxidized low-density lipoproteins.
Pathways	The role of CD204 extends to key cellular and immunological pathways. This receptor is involved in the Toll-like receptor signaling pathway which is important for innate immunity besides participating in the macrophage activation pathways. In these pathways CD204 interacts with other proteins including CD36 and SRA. This interaction helps coordinate inflammatory responses and the resolution of inflammation.
Associated diseases and disorders	CD204 is associated with atherosclerosis and chronic inflammation. Its connection with these conditions arises from its role in lipid uptake and immune cell regulation within the vascular system. In the context of atherosclerosis CD204's interaction with Apolipoprotein E (ApoE) influences the formation of foam cells which are significant in the disease's progression. Similarly in chronic inflammation CD204 modulates macrophage behavior impacting the inflammatory environment and potentially affecting the disease outcome.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

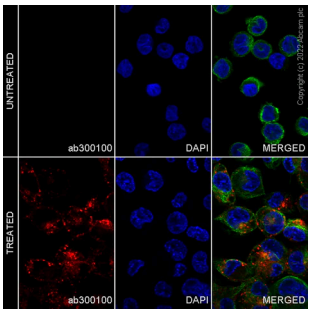
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

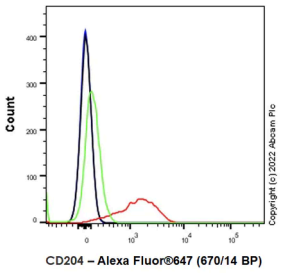
Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



Immunocytochemistry - Alexa Fluor® 647 Anti-CD204 antibody [EPR24403-17] (ab300100)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized THP-1 (human monocytic leukemia monocyte) cells labelling CD204 with ab300100 at 1/50 (10.0 ug/ml) dilution, followed by antibody at 1/None dilution (Green). Confocal image showing increased cytoplasmic staining in THP-1 cells treated with Phorbol-12-myristate-13-acetate (80 nM) for 72 hours. is observed. ab195887 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 488) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is at 1/None dilution.



Flow Cytometry - Alexa Fluor® 647 Anti-CD204 antibody [EPR24403-17] (ab300100)

Flow cytometric analysis of / fixed / permeabilized THP-1 (Human monocytic leukemia monocyte) treated with 80nM phorbol 12-myristate 13-acetate (PMA) for 72 hours (Red) / Untreated control (Green) cells labelling CD204 with ab300100 at 1/50 dilution (1ug) (Red) and Green (Red) compared with a Rabbit monoclonal isotype control - Alexa Fluor® 647 (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Gated on viable cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.