abcam

ab307622

Alexa Fluor® 488 Anti-CD16+CD32 antibody [EPR23501-203]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
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	EPR23501-203
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

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

IHC-P

Expected

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

Target data

See full target information Fcgr2

Function	Receptor for the Fc region of complexed immunoglobulins gamma. Low affinity receptor. Involved in a variety of effector and regulatory functions such as phagocytosis of antigen-antibody complexes from the circulation and modulation of antibody production by B-cells. Isoform IIB1 and isoform IIB1' form caps but fail to mediate endocytosis or phagocytosis. Isoform IIB2 can mediate the endocytosis of soluble immune complexes via clathrin-coated pits. Isoform IIB1 and isoform IIB2 can down-regulate B-cell, T-cell, and mast cell activation when coaggregated to B-cell receptors for AG (BCR), T-cell receptors for AG (TCR), and Fc receptors, respectively.

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

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	CD16 and CD32 also referred to as FCγRIII and FCγRII are proteins expressed on the surface of various immune cells like natural killer cells macrophages and some subsets of T cells. CD16 has a mass ranging between 50-80 kDa while CD32 exhibits variability in size between 32-40 kDa due to different isoforms. These proteins play pivotal roles in immune response by binding to the Fc region of immunoglobulins influencing cell activation and signaling.

Biological function summary	CD16 and CD32 serve important roles in mediating immune cell interactions. They work as part of immune synapses facilitating antibody-dependent cellular cytotoxicity (ADCC) and phagocytosis processes. Due to their involvement in these complex activities they are included in immunological synapse formation and modulation extending their influence over overall immune regulation and response. These proteins are known to contribute to both innate and adaptive immune mechanisms as receptors for the Fc portion of immunoglobulin G.
Pathways	CD16 and CD32 interact within signaling pathways like the Fc gamma receptor-mediated phagocytosis pathway and the immune response-regulating signaling pathway. These receptors work in coordination with other immunoglobulin family members to initiate targeted cellular reactions necessary for immune challenge responses. CD32 often partners with CD19 and CD21 within pathways to modulate B cell receptor-mediated signaling.
Associated diseases and disorders	CD16 and CD32 have connections to autoimmune diseases and infectious diseases. Aberrant expression or dysfunction in these proteins can contribute to the development of conditions such as systemic lupus erythematosus where improper immune complex clearance occurs and chronic inflammation results. CD16's involvement with NK cells can also play a role in viral infection control highlighting their importance in pathogen defense mechanisms.

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

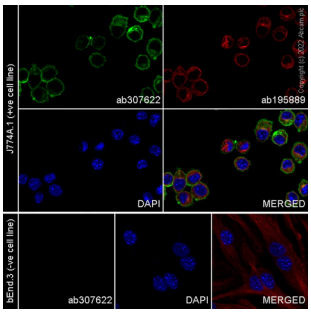
We do not recommend this combination. It is not covered by our product promise.

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.

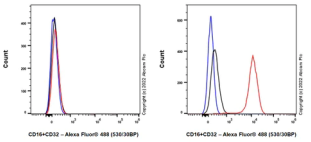
Full details and terms and conditions can be found here:
Terms & Conditions.

2 product images



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-CD16+CD32 antibody [EPR23501-203] (ab307622)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized J774A.1 (mouse reticulum cell sarcoma monocyte/macrophage) cells labelling CD16+CD32 with ab307622 at 1/50 (10.0 µg/ml) dilution. Confocal image showing strong membranous and weak cytoplasmic staining in J774A.1 cells. Negative control: bEnd.3 cell (PMID: 23911392). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Red). The Nuclear counterstain was DAPI (Blue).



Flow Cytometry - Alexa Fluor® 488 Anti-CD16+CD32 antibody [EPR23501-203] (ab307622)

Flow cytometric analysis of bEnd.3 (mouse brain endothelioma, Left) / J774A.1 (mouse reticulum cell sarcoma monocyte macrophage, Right) cells labelling CD16+CD32 with ab307622 at 1/500 dilution (0.1µg) (Red) compared with a Rabbit IgG monoclonal [EPR25A] - Isotype Control (Alexa Fluor® 647) (ab199093) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Negative control: bEnd.3 (PMID: 23911392). Gated on viable cells.

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