abcam

ab243839

Anti-CD200R antibody [OX131]

Key facts

Isotype	IgG1
Host species	Rat
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	OX131
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

IHC-Fr

Tested

Species	Mouse
Dilution info	5 µg/mL
Notes	-

Target data

See full target information Cd200r1

Function	Inhibitory receptor for the CD200/OX2 cell surface glycoprotein. Limits inflammation by inhibiting the expression of pro-inflammatory molecules including TNF, interferons, and inducible nitric oxide synthase (iNOS) in response to selected stimuli.

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

Supplementary info

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

Activity summary	CD200R also known as CD200 receptor is a protein expressed mainly on myeloid cells including macrophages dendritic cells and certain T cells. The protein has a molecular mass of approximately 62 kDa. This receptor is a type I membrane glycoprotein that plays an important role in immune system regulation. It binds to its ligand CD200 protein found on various cell types such as neurons epithelial cells and some immune cells to mediate suppressive effects on the immune response.

Biological function summary	CD200R plays a significant role in controlling the immune response by acting as an inhibitory receptor. When activated it sends signals that dampen immune cell activity which can prevent overactive immune responses and promote tissue homeostasis. This receptor is not part of a large receptor complex but interacts directly with its ligand CD200 to initiate signaling cascades that modulate immune functions. Its primary role lies in preventing unnecessary inflammation and autoimmunity through negative regulation of macrophage activation.
Pathways	CD200R is involved in the regulatory pathways of the immune system. It participates in pathways that manage immune tolerance and its interactions impact pathways related to inflammation control and tissue repair. The CD200R signaling cascades intersect with pathways involving other immune-modulatory proteins such as CD200R1 and CD200R3 which contribute to cellular communication in the immune environment. These pathways play critical roles in downregulating inflammatory responses and maintaining immune balance.
Associated diseases and disorders	CD200R holds relevance for conditions involving immune dysregulation. It is connected to autoimmune disorders and atopic dermatitis. For example in atopic dermatitis altered expression or function of CD200R may lead to improper immune responses contributing to inflammation. Furthermore CD200R agonists which are molecules that mimic the function of CD200 are an area of interest for developing therapeutic strategies to modulate immune responses. Related proteins such as CD200 and its other receptor variants play active roles in these disorders highlighting the importance of their balanced function to maintain immune homeostasis.

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

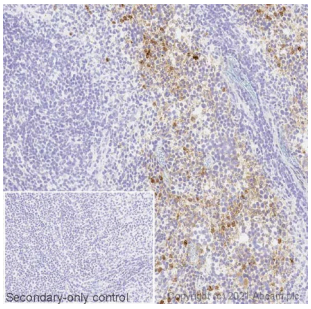
We do not recommend this combination. It is not covered by our product promise.

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

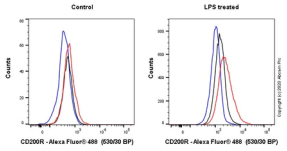


Immunohistochemistry (Frozen sections) - Anti-CD200R antibody [OX131] (ab243839)

CD200R Immunohistochemistry (Frozen sections) staining using rat Anti-CD200R antibody

IHC image of CD200R staining in a section of frozen normal mouse spleen performed on a Leica BOND^{TM} system using the standard protocol F.
The section was fixed with 10% paraformaldehyde for 10 mins prior to staining. The section was then incubated with ab243839, 5 µg/ml, for 15 mins at room temperature. A rabbit anti-rat bridger antibody, ab102248, was added at a 1/500 dilution for 8 mins at room temperature and then detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

The inset secondary-only control image is taken from an identical assay without primary antibody. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-CD200R antibody [OX131] (ab243839)

CD200R Flow Cytometry staining using rat Anti-CD200R antibody

Flow cytometry staining of C57 BL/6 mouse splenocytes treated with 10 ug/ml LPS for 3 days with ab243839 (right) or Rat IgG1 kappa; (ab18407) isotype (left). Splenocytes were incubated for 30 min on ice in 1x PBS containing 10% mouse serum and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab243839) or Rat IgG1 kappa; (ab18407) isotype (1x 10^6 in 100 µl at 1 µg/ml) for 30 min on ice.
The secondary antibody Goat anti-rat IgG H&L (Alexa Fluor® 488, pre-adsorbed) (ab150165) was used at 1/2000 dilution for 30 min on ice.

Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter . Events were gated on live CD19 positive B cells.

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