abcam

ab243838

Anti-CD200R antibody [OX102]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	OX102
Purification technique	Affinity purification
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Rat
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Rat
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 (By similarity).

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

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

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.

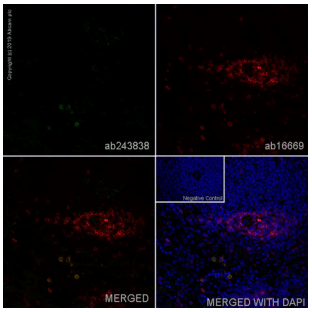
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2 product images



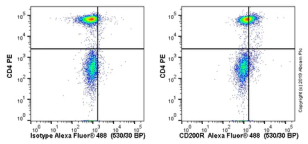
Immunohistochemistry (Frozen sections) - Anti-CD200R antibody [OX102] (ab243838)

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

IHC image of CD200R staining in a section of frozen normal rat spleen*.
The section was fixed using 10% formaldehyde in 1XPBS for 10 minutes. No antigen retrieval step was performed prior to staining. Non-specific protein-protein interactions were then blocked in TBS containing 0.025% (v/v) Triton X-100, 0.3M glycine and 1% (w/v) BSA for 1h at room temperature. The section was then incubated overnight at +4°C in TBS containing 0.025% (v/v) Triton X-100 and 1% (w/v) BSA with ab243838 (shown in green) at 5µg/ml and co-localisation of T cells stained using ab16669 (shown in red), Rabbit monoclonal to CD3, at 1/150 dilution. The section was then incubated with ab150117 (Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 488, 1/1000)) presabsorbed and ab150080 (Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594, 1/1000)) for 1 hour at room temperature. The secondary-only control image is taken from an identical assay without primary antibody. The section was then mounted using Fluoromount®.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). For IHC staining systems (automated and non-automated), customers should optimize variable parameters such as antibody concentrations and incubation times.

*Tissue obtained from Charles River.



Flow Cytometry - Anti-CD200R antibody [OX102] (ab243838)

CD200R Flow Cytometry staining using mouse Anti-CD200R antibody

Lewis rat splenocytes stained with ab243838 (right) or mouse IgG1κ (ab170190) isotype (left). Cells were incubated for 30 min on ice in 1x PBS containing 10 % rat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab243838) or mouse IgG1κ (ab170190) isotype (1x 10⁶ in 100 µl at 1 µg/ml) for 30 min on ice.

The secondary antibody Goat anti-mouse IgG H&L (Alexa Fluor ^{®;} 488, pre-adsorbed) (ab150117) was used at 1/2000 dilution for 30 min on ice.

The cells were simultaneously stained with CD4.

Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on CD3 positive T cells.

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