abcam

ab244580

Anti-CD44 antibody [OX49] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	OX49
Purification technique	Affinity purification Protein A
Concentration	1.021 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Rat
Dilution info	0.474 µg/mL
Notes	-

ICC/IF

Tested

Species	Rat
Dilution info	0.854 µg/mL
Notes	-

IHC-P

Tested

Species	Rat
Dilution info	0.085 µg/mL
Notes	-

Target data

See full target information CD44

Function

Cell-surface receptor that plays a role in cell-cell interactions, cell adhesion and migration, helping them to sense and respond to changes in the tissue microenvironment (PubMed:16541107, PubMed:19703720, PubMed:22726066). Participates thereby in a wide variety of cellular functions including the activation, recirculation and homing of T-lymphocytes, hematopoiesis, inflammation and response to bacterial infection (PubMed:7528188). Engages, through its ectodomain, extracellular matrix components such as hyaluronan/HA, collagen, growth factors, cytokines or proteases and serves as a platform for signal transduction by assembling, via its cytoplasmic domain, protein complexes containing receptor kinases and membrane proteases (PubMed:18757307, PubMed:23589287). Such effectors include PKN2, the RhoGTPases RAC1 and RHOA, Rho-kinases and phospholipase C that coordinate signaling pathways promoting calcium mobilization and actin-mediated cytoskeleton reorganization essential for cell migration and adhesion (PubMed:15123640). Upon interaction with LGALS9 ligand, activates downstream signaling components including LCK, ERK and MAPK to promotes NK cell activation (PubMed:37006235). (Microbial infection) Promotes foot-and-mouth disease virus internalization via macropinocytosis.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab244580 is the carrier-free version of ab238464.
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.

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

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

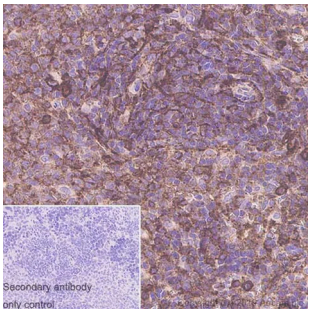
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

4 product images

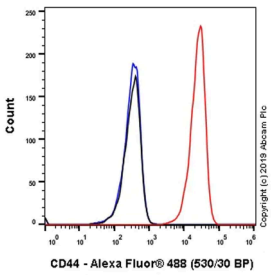


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [OX49] - BSA and Azide free (ab244580)

CD44 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD44 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab238464).
Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling CD44 with ab238464 at 0.085µg/ml, followed by a ready to use secondary. Membranous staining on rat spleen is observed. The section was incubated with ab238464 for 5 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, followed by ready to use secondary.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

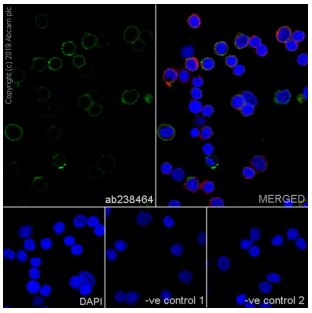


Flow Cytometry - Anti-CD44 antibody [OX49] - BSA and Azide free (ab244580)

CD44 Flow Cytometry staining using mouse Anti-CD44 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab238464).
Flow cytometric analysis of C6 (Rat glial tumor glial cell) cell line labeling CD44 with ab238464 at 0.474µg/ml (red) compared with a Mouse monoclonal IgG Isotype Control (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody.

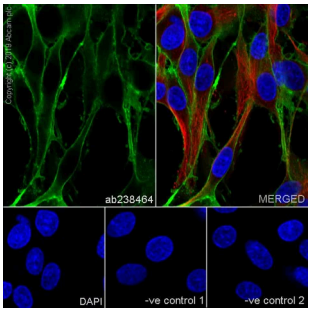
Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-CD44 antibody [OX49] - BSA and Azide free (ab244580)

CD44 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD44 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab238464).
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized rat splenocytes labeling CD44 with ab238464 at 0.854µg/ml, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining on rat splenocytes. The nuclear counterstain is DAPI (blue).
Tubulin is detected with ab179504 Anti-beta IV Tubulin antibody - Microtubule Marker at a 1/200 dilution followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at a 1/1000 dilution.
The negative controls are as follows:
-ve control 1: ab238464 at 1/500 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at 1/1000 dilution.
-ve control 2: ab179504 at 1/200 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-CD44 antibody [OX49] - BSA and Azide free (ab244580)

CD44 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD44 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab238464).
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized C6 (rat glial tumor glial cell) cells labeling CD44 with ab238464 at 0.854µg/ml, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary antibody at 1/1000 dilution (green). Confocal image showing membranous staining on C6 cell line. The nuclear counterstain is DAPI (blue).
Tubulin is detected with ab179504 Anti-beta IV Tubulin antibody - Microtubule Marker at a 1/200 dilution followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at a 1/1000 dilution.
The negative controls are as follows:
-ve control 1: ab238464 at 1/500 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at 1/1000 dilution.
-ve control 2: ab179504 at 1/200 dilution, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at 1/1000 dilution.

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