abcam

ab237970

Anti-CD44 antibody [F10-44-2] - BSA and Azide free

Key facts

Isotype	IgG2a
Host species	Mouse
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	F10-44-2
Purity	IgG fraction
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Flow Cyt

Tested

Species	Human
Dilution info	0.5-1 µg for 10^6 Cells
Notes	ab170191 - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

ICC/IF

Tested

Species	Human
Dilution info	5 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 duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab237970 is the carrier-free version of ab6124.

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

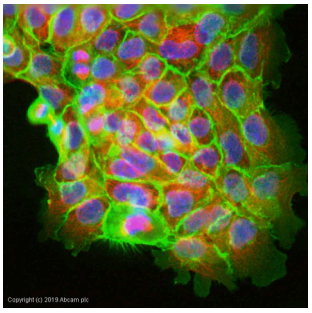
We do not recommend this combination. It is not covered by our product promise.

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.

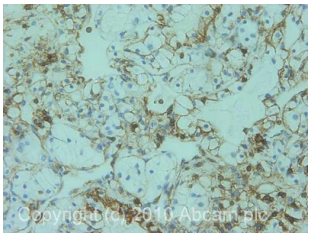
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-CD44 antibody [F10-44-2] - BSA and Azide free (ab237970)

CD44 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-CD44 antibody

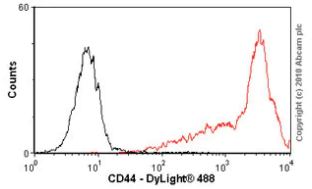
ab6124 staining CD44 in A431 cells. The cells were fixed with 100% methanol (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab6142 at 5µg/ml and ab6046 (Rabbit polyclonal to beta Tubulin - Loading Control) used at a 1/1000 dilution overnight at +4°C. The secondary antibodies were ab150117, Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed, (pseudo-colored green) and ab150081, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 594) preadsorbed, (colored red), both used at a 1/1000 dilution for 1 hour at room temperature. DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43 µM for 1hour at room temperature.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, L-arginine, and sodium azide (ab6124).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD44 antibody [F10-44-2] - BSA and Azide free (ab237970)

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

IHC image of CD44 staining in human kidney carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab6124, 5µg/ml, for 15 mins at room temperature and 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.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, L-arginine, and sodium azide (ab6124).



Flow Cytometry - Anti-CD44 antibody [F10-44-2] - BSA and Azide free (ab237970)

CD44 Flow Cytometry staining using mouse Anti-CD44 antibody

Overlay histogram showing peripheral blood lymphocytes stained with ab6124 (red line). The cells were incubated with the antibody (ab6124, 0.5µg/1x10^6 cells) for 30 min at 4°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H&L) (ab96879) at 1/200 dilution for 30 min at 4°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (ab91361, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed gating on peripheral blood lymphocytes.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, L-arginine, and sodium azide (ab6124).

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