abcam

ab328059

Anti-CD22 antibody [EPR30959-587] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
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	EPR30959-587
Purification technique	Affinity purification Protein A

Reactivity data

I-ELISA

Tested

Species	Recombinant full length protein - Mouse
Dilution info	-
Notes	-

Expected

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

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Mouse
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Recombinant full length protein - Mouse
Dilution info	-
Notes	-

Target data

See full target information Cd22

Function	Most highly expressed siglec (sialic acid-binding immunoglobulin-like lectin) on B-cells that plays a role in various aspects of B-cell biology including differentiation, antigen presentation, and trafficking to bone marrow (PubMed:7533044, PubMed:9016707). Binds to alpha 2,6-linked sialic acid residues of surface molecules such as CD22 itself, CD45 and IgM in a cis configuration. Can also bind to ligands on other cells as an adhesion molecule in a trans configuration. Acts as an inhibitory coreceptor on the surface of B-cells and inhibits B-cell receptor induced signaling, characterized by inhibition of the calcium mobilization and cellular activation (PubMed:9016707). Mechanistically, the immunoreceptor tyrosine-based inhibitory motif domain is phosphorylated by the Src kinase LYN, which in turn leads to the recruitment of the protein tyrosine phosphatase 1/PTPN6, leading to the negative regulation of BCR signaling. If this negative signaling from is of sufficient strength, apoptosis of the B-cell can be induced.

Storage

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

Notes

ab328059 is the carrier-free version of ab326045

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.

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

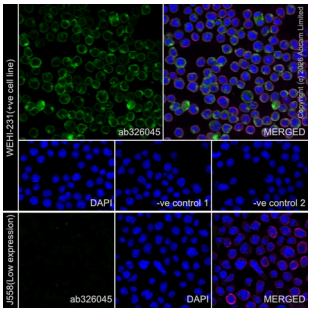
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images



Immunocytochemistry/ Immunofluorescence - Anti-CD22 antibody [EPR30959-587] - BSA and Azide free (ab328059)

CD22 Immunocytochemistry/ Immunofluorescence staining of WEHI-231(mouse B cell lymphoma B lymphocyte) using rabbit Anti-CD22 antibody

This data was developed using ab326045, the same antibody clone in a different buffer formulation.

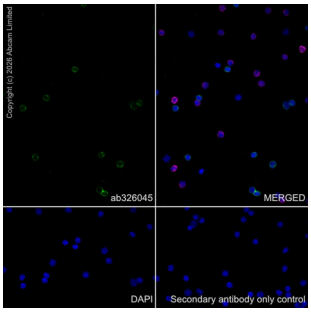
Immunofluorescent analysis of 4% Paraformaldehyde-fixed 0.1% TritonX-100 permeabilized WEHI-231(mouse B cell lymphoma B lymphocyte) and J558 (mouse B lymphocyte lymphoblast) cells labelling with ab326045 at 1/1000 (0.514 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic staining in WEHI-231 cells (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Low expression: J558 (PMID: 11807774). Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 (1 ug/ml) dilution followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 (2 ug/ml) dilution (Magenta).

-ve control 1: ab326045 at 1/1000 dilution followed by ab150120 at 1/1000 dilution.

-ve control 2: ab7291 at 1/1000 dilution followed by ab150081 at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-CD22 antibody [EPR30959-587] - BSA and Azide free (ab328059)

CD22 Immunocytochemistry/ Immunofluorescence staining of Mouse PBMC (mouse primary peripheral blood mononuclear cell) using rabbit Anti-CD22 antibody

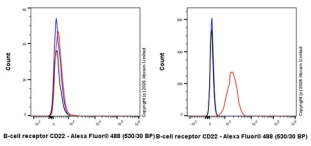
This data was developed using ab326045, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed 0.1% TritonX-100 permeabilized Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling with ab326045 at 1/1000 (0.514 µg/ml) dilution followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic staining in subsets of CD3 negative mouse PBMCs (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).

Anti-rat CD3 mouse monoclonal antibody (Alexa Fluor® 647) was used to counterstain CD3 at 1/100 dilution (Magenta).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution.



Flow Cytometry - Anti-CD22 antibody [EPR30959-587] - BSA and Azide free (ab328059)

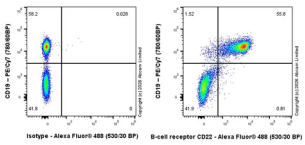
CD22 Flow Cytometry staining of WEHI-231 (mouse B cell lymphoma B lymphocyte, Right) using rabbit Anti-CD22 antibody

This data was developed using ab326045, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of WEHI-231 (mouse B cell lymphoma B lymphocyte Right) and J558 (mouse B lymphocyte lymphoblast Left) cells labelling with ab326045 at 1/500 dilution (0.1ug) / Red compared with a Rabbit monoclonal IgG (ab172730) / Black isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488 ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Low expression: J558.



Flow Cytometry - Anti-CD22 antibody [EPR30959-587] - BSA and Azide free (ab328059)

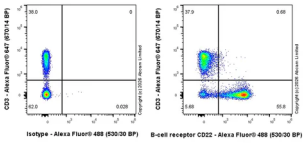
CD22 Flow Cytometry staining of Mouse PBMC (mouse primary peripheral blood mononuclear cell) using rabbit Anti-CD22 antibody

This data was developed using ab326045, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling CD22 with ab326045 at 1/500 dilution (0.1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488 ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Cells were co-stained with anti-CD19 conjugated to PE/CY7.



Flow Cytometry - Anti-CD22 antibody [EPR30959-587] - BSA and Azide free (ab328059)

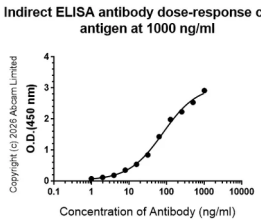
CD22 Flow Cytometry staining of Mouse PBMC (mouse primary peripheral blood mononuclear cell) using rabbit Anti-CD22 antibody

This data was developed using ab326045, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling CD22 with ab326045 at 1/500 dilution (0.1ug) / Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488 ab150081) at 1/5000 dilution was used as the secondary antibody.

Gated on viable cells. Cells were co-stained with anti-CD3 conjugated to Alexa Fluor®647.



Indirect ELISA - Anti-CD22 antibody [EPR30959-587] - BSA and Azide free (ab328059)

This data was developed using ab326045, the same antibody clone in a different buffer formulation.

Indirect ELISA analysis of ab326045 at 1000-0 ng/ml. The Secondary antibody used was Peroxidase AffiniPure Goat Anti-Rabbit IgG Fc fragment specific at 1:20000 dilution.

Antigen: Mouse B-cell receptor CD22 recombinant protein.

Antigen concentration: 1000 ng/ml

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