abcam

ab255918

Anti-CD23 antibody [BU38] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG1
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	BU38
Purification technique	Affinity purification Protein A
Concentration	1.071 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	11.14 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1.114 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information FCER2

Function	Low-affinity receptor for immunoglobulin E (IgE) and CR2/CD21. Has essential roles in the regulation of IgE production and in the differentiation of B cells. On B cells, initiates IgE-dependent antigen uptake and presentation to T cells (PubMed:2167225). On macrophages, upon IgE binding and antigen cross-linking induces intracellular killing of parasites through activation of L-Arginine-nitric oxide pathway (PubMed:7544003).

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

ab255918 is the carrier-free version of ab254162.

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.

Supplementary info

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

Activity summary	CD23 also known as Fc epsilon receptor II (FcεRII) or BU38 is a type II integral membrane protein with a molecular mass of approximately 45 kDa. It is expressed mainly on B cells but also appears on various other cell types such as macrophages eosinophils and Langerhans cells. CD23 expression occurs in both soluble and membrane-bound forms. The protein consists of a lectin-like extracellular domain a short transmembrane domain and a cytoplasmic tail.
Biological function summary	CD23 facilitates several immune functions including the regulation of immunoglobulin E (IgE) production and its receptor-mediated endocytosis. It has a role in cell adhesion growth and differentiation. CD23 exists independently localizing primarily to the surface of CD23-positive cells. Furthermore this protein influences the release and activity of various cytokines impacting both innate and adaptive immunity.

Pathways	CD23 plays central roles in IgE-mediated immune responses and allergic reactions. It is importantly involved in the synthesis and regulation of IgE connecting it to the IgE signaling pathway and immune system pathways. CD23 interacts with IgE and its receptors which include the high-affinity receptor FcεRI forming an interface between the antigen and immune effector functions. Additionally CD23 participates in pathways that involve immune response modulation and inflammation prevention.
Associated diseases and disorders	CD23 is most notably associated with allergic diseases such as asthma and allergic rhinitis due to its role in IgE regulation. It is also linked to chronic lymphocytic leukemia (CLL) in which CD23 serves as a marker for disease progression. In CLL interactions involving CD23 and related proteins such as BCMA and BAFF have been studied to better understand the disorder and its treatment. Anti-CD23 antibodies have been used as both diagnostic tools and therapeutic agents to target CD23-positive cells in these diseases.

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

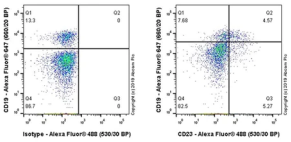
We do not recommend this combination. It is not covered by our product promise.

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



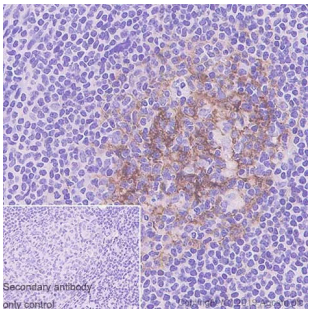
Flow Cytometry - Anti-CD23 antibody [BU38] - BSA and Azide free (ab255918)

CD23 Flow Cytometry staining using mouse Anti-CD23 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab254162).
Flow cytometric analysis of human peripheral blood mononuclear cell (PBMC) (right) labeling CD23 with ab254162 at 11.14µg/ml compared with Mouse monoclonal IgG Isotype Control (left). Goat Anti-Mouse IgG (Alexa Fluor® 488) (ab150113) at 1/2000 dilution was used as the secondary antibody.

Cells were stained with mouse IgG (Left) or ab254162 (Right). Then stained with anti-CD19 conjugated to Alexa Fluor® 647.

Gated on viable cells.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD23 antibody [BU38] - BSA and Azide free (ab255918)

CD23 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-CD23 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, Glycerol and sodium azide (ab254162).
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CD23 with ab254162 at 1.114µg/ml followed by ready to use secondary. Positive staining on germinal center in the human tonsil is observed. The section was incubated with ab254162 for 30 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.

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