abcam

ab245732

Anti-CD23 antibody [SP163] - 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	SP163
Purification technique	Affinity purification Protein A/G
Concentration	1.055 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

WB

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
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

ab245732 is the carrier-free version of ab135386.

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.

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

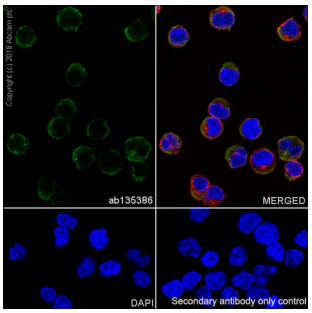
We do not recommend this combination. It is not covered by our product promise.

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.

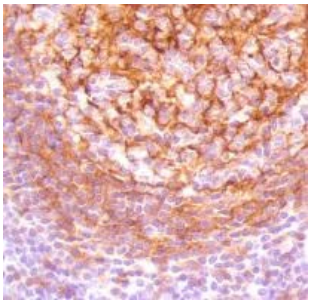
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-CD23 antibody [SP163] - BSA and Azide free (ab245732)

CD23 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-CD23 antibody

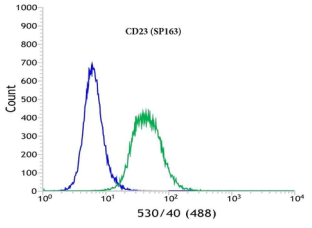
Immunocytochemistry/ Immunofluorescence analysis of Raji (human Burkitt's lymphoma B lymphocyte) cells labeling CD23 with purified ab135386 (7.48 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab135386).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD23 antibody [SP163] - BSA and Azide free (ab245732)

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

Immunohistochemical analysis of paraffin embedded human tonsil tissue labeling CD23 with ab135386 antibody at a dilution of 1/50.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab135386).



Flow Cytometry - Anti-CD23 antibody [SP163] - BSA and Azide free (ab245732)

CD23 Flow Cytometry staining using rabbit Anti-CD23 antibody

Immunohistochemical analysis of paraffin embedded Human tonsil tissue labelling CD23 with ab135386 antibody at a dilution of 1/50.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (ab135386)

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