abcam

ab277131

Anti-CD23 antibody [007] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Mouse Fcer2. Database link P20693
Carrier free	Yes
Clone number	007
Purification technique	Affinity purification Protein A

Reactivity data

ICC

Tested

Species	Mouse
Dilution info	1/20 - 1/100
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	1/25 - 1/100
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. On macrophages, upon IgE binding and antigen cross-linking induces intracellular killing of parasites through activation of L-Arginine-nitric oxide pathway.

Storage

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

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

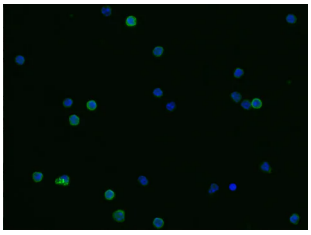
We do not recommend this combination. It is not covered by our product promise.

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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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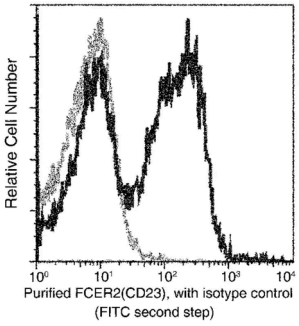
2 product images



Immunocytochemistry - Anti-CD23 antibody [007] - BSA and Azide free (ab277131)

CD23 Immunocytochemistry staining using rabbit Anti-CD23 antibody

Immunofluorescence staining of CD23 in mouse splenocytes. Cells were fixed with 4% PFA, blocked with 10% serum, and ab277131 at 1/60 dilution at 4°C overnight. Then cells were stained with the Alexa Fluor® 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue).



Flow Cytometry - Anti-CD23 antibody [007] - BSA and Azide free (ab277131)

CD23 Flow Cytometry staining using rabbit Anti-CD23 antibody

Flow cytometric analysis of CD23 expression on BABL/c splenocytes. Cells were stained with ab277131 at 1/25 dilution, then a FITC-conjugated second step antibody (Black). Cells were also stained with an isotype control (Grey). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.

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