abcam

ab242380

# Anti-CD23 antibody [SP23] - 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** | SP23 |
| **Purification technique** | Affinity purification |
| **Concentration** | 1.006 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

## WB

### Expected

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | Use at an assay dependent concentration. |
| **Notes** | - |

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | Staining of formalin fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. |

# 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

ab242380 is the carrier-free version of ab16702.

**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**

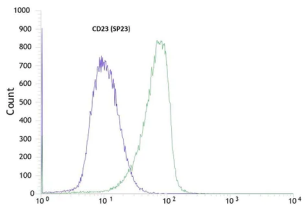
We do not recommend this combination. It is not covered by our product promise.

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.

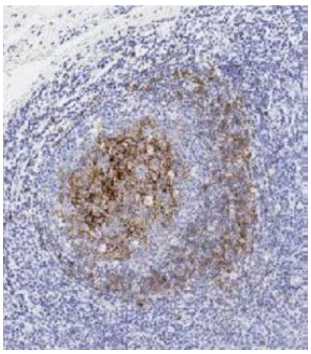
## 3 product images




### Flow Cytometry - Anti-CD23 antibody [SP23] - BSA and Azide free (ab242380)

CD23 Flow Cytometry staining using rabbit Anti-CD23 antibody

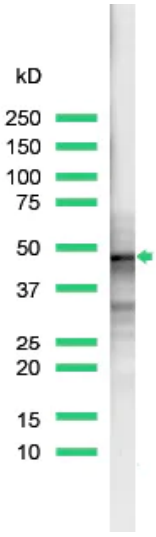
Flow cytometric analysis of rabbit anti-CD23 (SP23) antibody ab16702 (1/100) in Jurkats (green) compared to negative control of rabbit IgG (blue).
This data was developed using the same antibody clone in a different buffer formulation containing Tris buffered saline, BSA, and sodium azide (ab16702).



## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD23 antibody [SP23] - BSA and Azide free (ab242380)

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

Immunohistochemical analysis of paraffin-embedded Human tonsil labeling CD23 with ab16702 at 1/100 (76 µg/ml). The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab16702 for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. DAB was used as the chromogen. Counterstained with Hematoxylin and mounted with DPX.
This data was developed using the same antibody clone in a different buffer formulation containing Tris buffered saline, BSA, and sodium azide (ab16702).




## Western blot - Anti-CD23 antibody [SP23] - BSA and Azide free (ab242380)

CD23 Western blot staining of lysate prepared from Raji cells using rabbit Anti-CD23 antibody

**This image was generated using a previous batch manufactured using hybridoma production method.**
This data was developed using the same antibody clone in a different buffer formulation containing Tris buffered saline, BSA, and sodium azide (ab16702).

All lanes:
Western blot - Anti-CD23 antibody [SP23] (ab16702) at 1/25 dilution

All lanes:
lysate prepared from Raji cells

Predicted band size: 36 kDa

Observed band size: 45 kDa

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