abcam

ab307681

Anti-Bcl6 antibody [K112-91]

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	K112-91
Purification technique	Affinity purification Protein A
Concentration	0.992 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information BCL6

Function	Transcriptional repressor mainly required for germinal center (GC) formation and antibody affinity maturation which has different mechanisms of action specific to the lineage and biological functions. Forms complexes with different corepressors and histone deacetylases to repress the transcriptional expression of different subsets of target genes. Represses its target genes by binding directly to the DNA sequence 5'-TTCCTAGAA-3' (BCL6-binding site) or indirectly by repressing the transcriptional activity of transcription factors. In GC B-cells, represses genes that function in differentiation, inflammation, apoptosis and cell cycle control, also autoregulates its transcriptional expression and up-regulates, indirectly, the expression of some genes important for GC reactions, such as AICDA, through the repression of microRNAs expression, like miR155. An important function is to allow GC B-cells to proliferate very rapidly in response to T-cell dependent antigens and tolerate the physiological DNA breaks required for immunoglobulin class switch recombination and somatic hypermutation without inducing a p53/TP53-dependent apoptotic response. In follicular helper CD4(+) T-cells (T(FH) cells), promotes the expression of T(FH)-related genes but inhibits the differentiation of T(H)1, T(H)2 and T(H)17 cells. Also required for the establishment and maintenance of immunological memory for both T- and B-cells. Suppresses macrophage proliferation through competition with STAT5 for STAT-binding motifs binding on certain target genes, such as CCL2 and CCND2. In response to genotoxic stress, controls cell cycle arrest in GC B-cells in both p53/TP53-dependedent and -independent manners. Besides, also controls neurogenesis through the alteration of the composition of NOTCH-dependent transcriptional complexes at selective NOTCH targets, such as HES5, including the recruitment of the deacetylase SIRT1 and resulting in an epigenetic silencing leading to neuronal differentiation.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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

Supplementary info

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

Activity summary	The Bcl6 protein also known as B-cell lymphoma 6 is a transcriptional repressor important for the germinal center formation in B-cells. It has a molecular weight of approximately 95 kDa. Bcl6 is expressed mainly in B-cells T-cells and certain subsets of dendritic cells. It functions by binding to target DNA sequences where it represses the expression of specific genes leading to controlled cell proliferation differentiation and apoptosis. Researchers often study Bcl6 through the use of monoclonal antibodies particularly in immunohistochemistry (IHC).
Biological function summary	Bcl6 plays essential roles in immune response regulation and lymphocyte development. In germinal centers Bcl6 influences the process of somatic hypermutation and class switch recombination in B-cells which is a part of generating antibody diversity. It operates as a central player in a multiprotein complex that includes corepressors such as SMRT and NCoR which facilitate the repression of its target genes. This regulatory action helps maintain the precise balance of immune cell functions.
Pathways	Bcl6 integrates into the B-cell receptor (BCR) signaling and the JAK-STAT pathway. It interacts with molecules like STAT1 and STAT3 positively influencing the survival and proliferation of B-cells. In these pathways Bcl6's activity modulates the transcriptional landscape that determines cell fate decisions affecting cellular processes such as proliferation and survival in response to external cues.
Associated diseases and disorders	Bcl6 is relevant to B cell lymphomas specifically diffuse large B-cell lymphoma (DLBCL) where it is often overexpressed contributing to malignancy by preventing cell death. This pathology frequently involves chromosomal translocations that juxtapose the Bcl6 gene with immunoglobulin genes. The relationship between

Bcl6 and other proteins like Bcl2 is noteworthy in this context as Bcl2 inhibits apoptosis further contributing to cancer progression. Mutations and dysregulated expression of Bcl6 have also shown links to autoimmune diseases where its role in cell differentiation and survival may lead to aberrant immune responses.

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

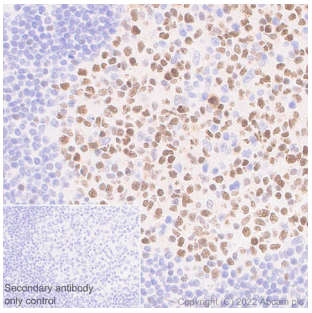
We do not recommend this combination. It is not covered by our product promise.

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.

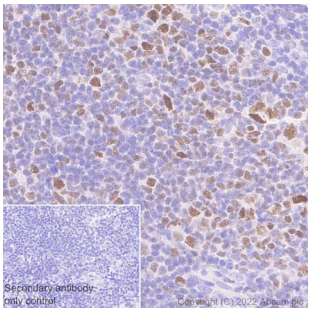
Full details and terms and conditions can be found here:
Terms & Conditions.

4 product images



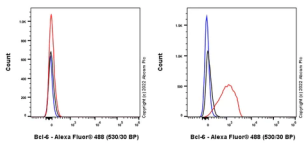
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl6 antibody [K112-91] (ab307681)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling Bcl6 with ab307681 at 1/1000 (0.992 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human tonsil. The section was incubated with ab307681 for 30 mins at room temperature, followed by anti-mouse IgG1 antibody (ab125913) for 8 mins during the LeicaDS9800 kit staining procedure. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Bcl6 antibody [K112-91] (ab307681)

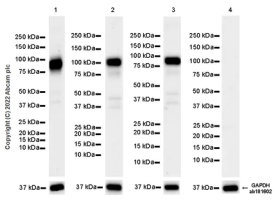
Immunohistochemical analysis of paraffin-embedded human non-Hodgkin's tissue labeling Bcl6 with ab307681 at 1/1000 (0.992 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Nuclear staining on human non-Hodgkin's B-cell lymphoma. The section was incubated with ab307681 for 30 mins at room temperature, followed by anti-mouse IgG1 antibody (ab125913) for 8 mins during the LeicaDS9800 kit staining procedure. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-Bcl6 antibody [K112-91] (ab307681)

Bcl6 Flow Cytometry (Intracellular) staining using mouse Anti-Bcl6 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Jurkat (human T cell leukemia T lymphocyte, Left) / Ramos (human Burkitt's lymphoma B lymphocyte, Right) cells labelling Bcl6 with ab307681 at 1/1000 dilution (0.1ug) (Red) compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti-Mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody. Negative control: Jurkat (PMID: 8652841, 10757802).



Western blot - Anti-Bcl6 antibody [K112-91] (ab307681)

Blocking and diluting buffer and concentration: 5% NFDM/TBST. Negative control: Jurkat (PMID: 8652841, 10757802). The lysates were freshly made and used for Western Blotting immediately to minimize protein degradation. In Western blot, Anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution. Exposure time: 59 seconds.
All lanes:
Western blot - Anti-Bcl6 antibody [K112-91] (ab307681) at 1/1000 dilution

Lane 1:
Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 2:
Raji (human Burkitt's lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 3:
Daudi (human Burkitt's lymphoma lymphoblast) whole cell lysate at 20 µg

Lane 4:
Jurkat (human T cell leukemia T lymphocyte) whole cell lysate at 20 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Observed band size: 78 kDa

Exposure time: 59s

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