abcam

ab242426

Anti-Tcl1 antibody [SP248] - 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	SP248
Purification technique	Affinity purification Protein A/G
Concentration	1.002 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

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Boil tissue section in citrate buffer pH 6.0 for 10 minutes followed by cooling at room temperature for 20 minutes. Primary incubation for 10 minutes at room temperature.

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	Primary incubation for 30 minutes at 4Â°C.

Target data

See full target information TCL1A

Function	Enhances the phosphorylation and activation of AKT1, AKT2 and AKT3. Promotes nuclear translocation of AKT1. Enhances cell proliferation, stabilizes mitochondrial membrane potential and promotes cell survival.

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

ab242426 is the carrier-free version of ab225718.
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	The TCL1 (T-cell leukemia/lymphoma protein 1) also known as TCL1A is an important protein involved in cellular processes. TCL1 has a molecular mass of approximately 14 kDa and plays roles in signal transduction pathways. The protein is expressed in various tissues including the thymus lymph nodes and spleen. TCL1 is particularly important in T-cell development and function. It functions at a mechanistic level by interacting with other proteins thereby influencing cell signaling pathways essential for lymphocyte proliferation and survival.
Biological function summary	TCL1 enhances the activity of the AKT kinase an important component of cellular signaling that modulates cell growth and survival. This protein does not form any large complex but acts through AKT phosphorylation. The activation of TCL1 leads to the promotion of cell proliferation and prevention of apoptosis especially in

	lymphocytes. The regulation of these cellular activities by TCL1 suggests its important role in the development of the immune system.
Pathways	The AKT signaling pathway is significantly influenced by TCL1 controlling cell growth division and apoptosis. The interaction of TCL1 with AKT activates the PI3K/AKT pathway an important signal transduction pathway promoting survival and growth in response to extracellular signals. TCL1 indirectly affects the mTOR signaling pathway through its modulation of AKT affecting protein synthesis and cell metabolism. Both pathways emphasize the broad role of TCL1 in maintaining normal cellular functions and growth regulation.
Associated diseases and disorders	The overexpression or mutation of TCL1 can lead to malignancies such as T-cell leukemia and B-cell lymphoma. In these cancers abnormal TCL1 activity results in enhanced cell survival and proliferation contributing to tumorigenesis. In leukemia TCL1 directly interacts with AKT and its dysregulation becomes pathogenic. Research continues to investigate the involvement of TCL1 in oncogenesis and how its association with AKT and other signaling molecules like mTOR contributes to cancer progression. Understanding these interactions could potentially offer new therapeutic targets for treating related malignancies.

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

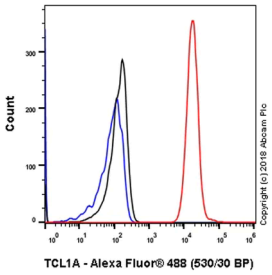
We do not recommend this combination. It is not covered by our product promise.

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.

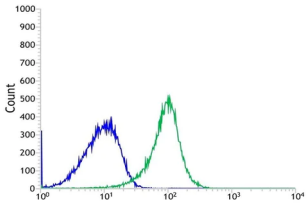
5 product images



Flow Cytometry (Intracellular) - Anti-Tcl1 antibody [SP248] - BSA and Azide free (ab242426)

Tcl1 Flow Cytometry (Intracellular) staining using rabbit Anti-Tcl1 antibody

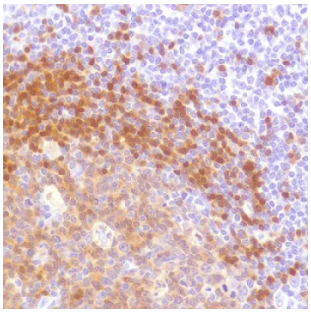
Intracellular Flow Cytometry analysis of Ramos (Human Burkitt's lymphoma B lymphocyte) cells labeling Tcl1 with purified ab225718 at 1/200 dilution (0.66µg/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) / Black. Unlabeled control - Unlabelled cells / blue. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab225718).



Flow Cytometry (Intracellular) - Anti-Tcl1 antibody [SP248] - BSA and Azide free (ab242426)

Tcl1 Flow Cytometry (Intracellular) staining using rabbit Anti-Tcl1 antibody

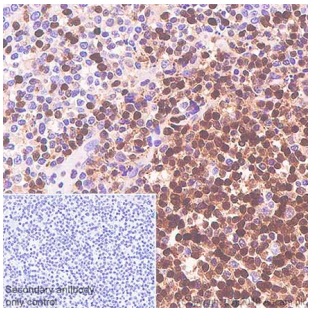
Intracellular flow cytometric analysis of Ramos (human Burkitt's lymphoma cell line) cells treated with ab225718 at 1/400 dilution (green) compared with a negative control of rabbit IgG (blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (ab225718).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tcl1 antibody [SP248] - BSA and Azide free (ab242426)

Tcl1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Tcl1 antibody

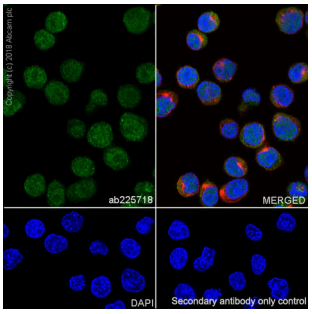
Formalin-fixed, paraffin-embedded human tonsil tissue stained for Tcl1 using ab225718 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, and sodium azide (ab225718).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tcl1 antibody [SP248] - BSA and Azide free (ab242426)

Tcl1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Tcl1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human tonsil tissue sections labeling Tcl1 with ab225718 at 1/100 dilution (1.32 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10 mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Hematoxylin was used as a counterstain. Mainly nuclear staining on the human tonsil, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab225718 for 10 mins at room temperature. This image was generated using ab225718, the same clone, but with a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-Tcl1 antibody [SP248] - BSA and Azide free (ab242426)

Tcl1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Tcl1 antibody

Immunocytochemistry/ Immunofluorescence analysis of Ramos (human Burkitt's lymphoma B lymphocyte) cells labeling Tcl1 with purified ab225718 at 1/50 (2.6 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 (ab225718).

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