abcam

ab247435

Anti-FYB antibody [EP2546Y] - 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	EP2546Y
Purification technique	Affinity purification Protein A
Concentration	1.016 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information FYB1

Function Acts as an adapter protein of the FYN and LCP2 signaling cascades in T-cells (By similarity). May play a role in linking T-cell signaling to remodeling of the actin cytoskeleton (PubMed:10747096, PubMed:16980616). Modulates the expression of IL2 (By similarity). Involved in platelet activation (By similarity). Prevents the degradation of SKAP1 and SKAP2 (PubMed:15849195). May be involved in high affinity immunoglobulin epsilon receptor signaling in mast cells (By similarity).

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

ab247435 is the carrier-free version of ab76103.

Species reactivity
Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

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	The protein 'FYB' also known as Fyn-binding protein or ADAP (Adhesion and Degranulation-promoting Adapter Protein) is a cytosolic adaptor protein with a molecular mass of approximately 85 kDa. This protein is important for intracellular signaling pathways as it acts as a link between various surface receptors and downstream signaling molecules. FYB is prominently expressed in hematopoietic

	cells with its presence noted in T-cells where it facilitates effective immune responses. This makes anti-FYB antibodies valuable tools for studying T-cell signaling and immune regulation.
Biological function summary	The Fyn-binding protein plays significant roles in modulating immune responses by interacting with the cytoskeleton and various signaling components. FYB does not normally function alone but exists as part of the LAT (Linker for Activation of T-cells) signalosome complex a multi-protein structure essential for T-cell receptor (TCR) signaling. It influences cytoskeletal rearrangement cell adhesion and migration impacting the immune cell's ability to reach sites of inflammation or infection. Its interaction with integrins further enhances these cellular processes.
Pathways	FYB is integral to T-cell receptor signaling and integrin-mediated signal transduction pathways. In TCR signaling FYB works alongside core proteins such as SLP-76 and Vav1 to propagate activation signals necessary for T-cell activation and proliferation. Within integrin signaling FYB collaborates with Talin and Kindlin to regulate cell adhesion and motility fundamental for immune surveillance and response tasks. The tight regulation of these pathways ensures that immune cells can properly adapt to various immune challenges.
Associated diseases and disorders	Irregular FYB function associates with defective immune responses and autoimmune conditions such as systemic lupus erythematosus and rheumatoid arthritis. These conditions arise from aberrant activation or suppression of T-cell signaling where FYB as part of the LAT signalosome indirectly contributes to the pathophysiology. Furthermore FYB interactions with proteins like SLP-76 and Vav1 highlight its potential role in these diseases making it a target for research into therapeutic interventions for T-cell mediated disorders.

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

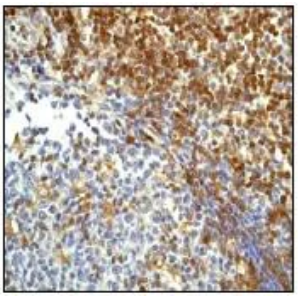
We do not recommend this combination. It is not covered by our product promise.

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

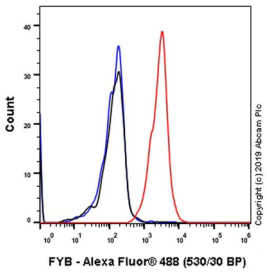


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FYB antibody [EP2546Y] - BSA and Azide free (ab247435)

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

This data was developed using ab76103, the same antibody clone in a different buffer formulation. ab76103, at 1/250 dilution, staining FYB in paraffin-embedded human tonsil tissue by Immunohistochemistry.

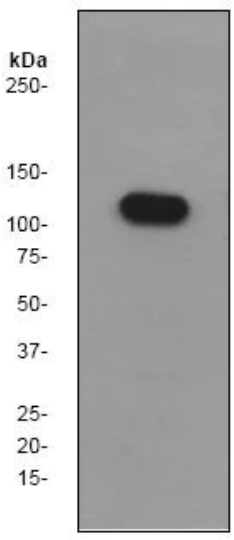
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-FYB antibody [EP2546Y] - BSA and Azide free (ab247435)

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

This data was developed using ab76103, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of TF-1 (Human Erythroleukemia erythroblast) cells labeling FYB with purified ab76103 at 1/100 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cells without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-FYB antibody [EP2546Y] - BSA and Azide free (ab247435)

This data was developed using ab76103, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-FYB antibody [EP2546Y] (ab76103) at 1/10000 dilution

All lanes:
TF-1 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 85 kDa

Observed band size: 110 kDa

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