Technical Data Sheet

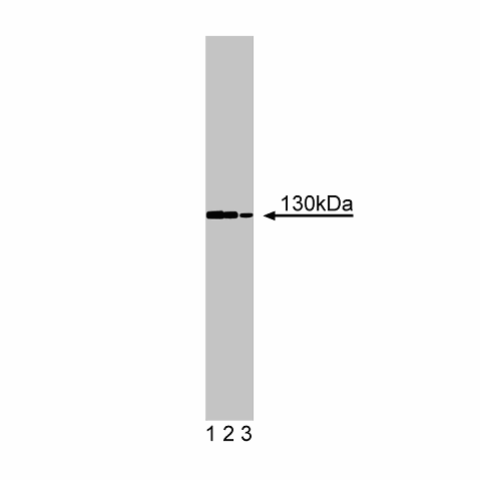
Purified Mouse Anti-Human FYB

Product Information

Material Number:	**610944**
Alternate Name:	Fyn Binding Protein; SLAP-130
Size:	50 µg
Concentration:	250 µg/ml
Clone:	5/FYB
Immunogen:	Human FYB aa. 673-783
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Engagement of the T cell receptor (TcR) results in the activation of multiple intracellular src protein tyrosine kinases (PTKs) including p56 [lck] and p59 [fyn]. PTK activation induces TcRζ phosphorylation and the subsequent recruitment and activation of ZAP-70 which specifically phosphorylates SLP-76. SLP-76 interacts with multiple components of T cell signaling pathways, including Grb-2, PLC-γ, Vav, and SLAP-130 (also known as SLP-76 Associated Phosphoprotein of 130 kDa). SLAP-130 contains multiple tyrosine based motifs, proline base type I and II SH3 domain binding motifs, lysine/glutamic acid rich nuclear localization motifs, and an SH3-like domain. It associates with the SH2 domain of SLP-76 and is phosphorylated by TcR induced PTKs. This protein has also been reported to directly interact with fyn and has been referred to as fyn binding protein (FYB). Co-transfection data has shown that a limited concentration of FYB/SLAP-130 enhances TcR-induced IL-2 production, while overexpression downregulates gene expression. Thus, FYB/SLAP-130 is viewed to be a regulatory component of the fyn/SLP-76 signaling cascade in T cells.



Western blot analysis of FYB on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152) . *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-human FYB antibody.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

da Silva AJ, Li Z, de Vera C, Canto E, Findell P, Rudd CE. Cloning of a novel T-cell protein FYB that binds FYN and SH2-domain-containing leukocyte protein 76 and modulates interleukin 2 production. *Proc Natl Acad Sci U S A.* 1997; 94(14):7493-7498.(Biology)

Geng L, Pfister S, Kraeft SK, Rudd CE. Adaptor FYB (Fyn-binding protein) regulates integrin-mediated adhesion and mediator release: differential involvement of the FYB SH3 domain. *Proc Natl Acad Sci U S A.* 2001; 98(20):11527-11532.(Biology: Flow cytometry, Immunofluorescence, Immunoprecipitation, Western blot)

Musci MA, Hendricks-Taylor LR, Motto DG. Molecular cloning of SLAP-130, an SLP-76-associated substrate of the T cell antigen receptor-stimulated protein tyrosine kinases. *J Biol Chem.* 1997; 272(18):11674-11677.(Biology)

Oda A, Ikeda Y, Ochs HD. Rapid tyrosine phosphorylation and activation of Bruton's tyrosine/Tec kinases in platelets induced by collagen binding or CD32 cross-linking. *Blood.* 2000; 95(5):1663-1670.(Biology: Western blot)