

# Fyb (5): sc-135913

## BACKGROUND

Fyb (Fyn binding protein) and the anchoring proteins SKAP55 (Src kinase-associated phosphoprotein) and SKAP55-R (SKAP55-related protein) associate with the tyrosine kinase p59fyn. SKAP55 and SKAP55-R bind to Fyb through their SH3 domains and function as substrates for p59Fyn in resting T cells. SKAP55 contains an amino-terminal pleckstrin homology domain and a carboxy-terminal SH3 domain binding motif of adjacent arginine and lysine residues followed by tandem tyrosines (i.e. RKxxYxxY). SKAP55-R, similar in overall structure to SKAP55, contains a coiled-coil N-terminal domain. SKAP55 associates with SLAP-130, another component of the Fyn complex, which plays a role in the regulation of signaling events initiated by lymphocyte antigen receptors leading up to T cell activation. The human Fyb gene maps to chromosome 5p13.1 and encodes a 783 amino acid protein.

## REFERENCES

1. Marie-Cardine, A., Bruyns, E., Eckerskorn, C., Kirchgessner, H., Meuer, S.C. and Schraven, B. 1997. Molecular cloning of SKAP55, a novel protein that associates with the protein tyrosine kinase p59Fyn in human T-lymphocytes. *J. Biol. Chem.* 272: 16077-16080.
2. Marie-Cardine, A., Hendricks-Taylor, L.R., Boerth, N.J., Zhao, H., Schraven, B. and Koretzky, G.A. 1998. Molecular interaction between the Fyn-associated protein SKAP55 and the SLP-76-associated phosphoprotein SLAP-130. *J. Biol. Chem.* 273: 25789-25795.
3. Liu, J., Kang, H., Raab, M., da Silva, A.J., Kraeft, S.K. and Rudd, C.E. 1998. FYB (FYN binding protein) serves as a binding partner for lymphoid protein and FYN kinase substrate SKAP55 and a SKAP55-related protein in T cells. *Proc. Natl. Acad. Sci. USA* 95: 8779-8784.
4. Peterson, E.J., Clements, J.L., Fang, N. and Koretzky, G.A. 1998. Adaptor proteins in lymphocyte antigen-receptor signaling. *Curr. Opin. Immunol.* 10: 337-344.
5. Marie-Cardine, A., Kirchgessner, H. and Schraven, B. 1999. Molecular alterations of the Fyn-complex occur as late events of human T cell activation. *Eur. J. Immunol.* 29: 1175-1187.
6. Kang, H., Freund, C., Duke-Cohan, J.S., Musacchio, A., Wagner, G. and Rudd, C.E. 2000. SH3 domain recognition of a proline-independent tyrosine-based RKxxYxxY motif in immune cell adaptor SKAP55. *EMBO J.* 19: 2889-2899.
7. LocusLink Report (LocusID: 2533). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

Genetic locus: FYB (human) mapping to 5p13.1.

## SOURCE

Fyb (5) is a mouse monoclonal antibody raised against amino acids 673-783 of Fyb of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>1</sub> in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol and 0.04% stabilizer protein.

## APPLICATIONS

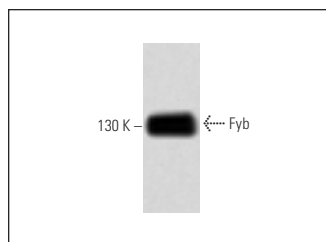
Fyb (5) is recommended for detection of Fyb of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Fyb siRNA (h): sc-40597, Fyb shRNA Plasmid (h): sc-40597-SH and Fyb shRNA (h) Lentiviral Particles: sc-40597-V.

Molecular Weight of Fyb isoforms: 120/130 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## DATA



Fyb (5): sc-135913. Western blot analysis of Fyb expression in Jurkat whole cell lysate.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.