

Fyb (C-8): sc-515372

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. 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.
4. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Fyb (C-8) is a mouse monoclonal antibody raised against amino acids 504-614 mapping within an internal region of Fyb of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fyb (C-8) is available conjugated to agarose (sc-515372 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515372 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515372 PE), fluorescein (sc-515372 FITC), Alexa Fluor® 488 (sc-515372 AF488), Alexa Fluor® 546 (sc-515372 AF546), Alexa Fluor® 594 (sc-515372 AF594) or Alexa Fluor® 647 (sc-515372 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515372 AF680) or Alexa Fluor® 790 (sc-515372 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Fyb (C-8) is recommended for detection of Fyb of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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-120 isoform: 120 kDa.

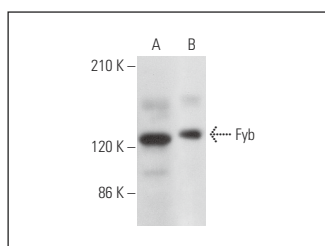
Molecular Weight of Fyb-130 isoform: 130 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or AML-193 whole cell lysate: sc-364182.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Fyb (C-8): sc-515372. Western blot analysis of Fyb expression in Jurkat (A) and AML-193 (B) whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.