SANTA CRUZ BIOTECHNOLOGY, INC.

Fyn (FYN3): sc-16

BACKGROUND

Src is the human homolog of the v-Src gene of the Rous sarcoma virus, also called avian sarcoma virus or ASV. Src was the first proto-oncogenic non-receptor tyrosine kinase characterized in human. By virtue of common structural motifs, the Src family is composed of nine members in vertebrates including Src, Yes, Fgr, Frk, Fyn, Lyn, Hck, Lck and Blk. Src-family kinases transduce signals that are involved in the control of a variety of cellular processes including proliferation, differentiation, motility and adhesion. Src-family kinases contain an amino-terminal cell membrane anchor followed by an SH3 domain and an SH2 domain involved in modular association and activation, respectively. Src-family kinases are normally maintained in an inactive state and can be activated transiently during cellular events such as mitosis. Different subcellular localizations of Src family kinases may be important for the regulation of specific cellular processes such as mitogenesis, cytoskeletal organization and membrane trafficking. Fyn and Lck kinases play a key role in T cell antigen receptor (TCR) signaling. The human Fyn gene maps to chromosome 6q21 and encodes a 537 amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: FYN (human) mapping to 6q21; Fyn (mouse) mapping to 10 B1.

SOURCE

Fyn (FYN3) is available as either rabbit (sc-16) or goat (sc-16-G) polyclonal affinity purified antibody raised against a peptide mapping at the N-terminus of Fyn of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-16 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as phycoerythrin (sc-16 PE) conjugate for flow cytometry, 100 tests and as agarose (sc-16 AC) conjugate for immunoprecipitation, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

Fyn (FYN3) is recommended for detection of Fyn of mouse, rat, human, *Xenopus laevis* and zebrafish 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Fyn (FYN3) is also recommended for detection of Fyn in additional species, including canine, bovine, porcine and avian.

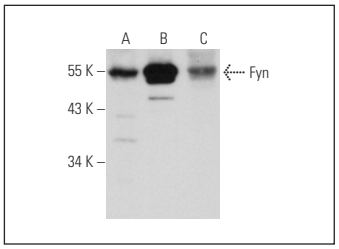
Suitable for use as control antibody for Fyn siRNA (h): sc-29321, Fyn siRNA (m): sc-35425, Fyn shRNA Plasmid (h): sc-29321-SH, Fyn shRNA Plasmid (m): sc-35425-SH, Fyn shRNA (h) Lentiviral Particles: sc-29321-V and Fyn shRNA (m) Lentiviral Particles: sc-35425-V.

Molecular Weight of Fyn: 59 kDa.

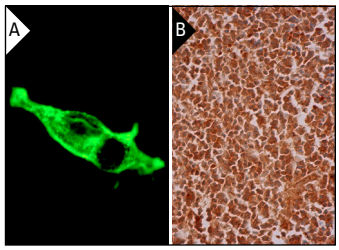
STORAGE

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

DATA



Fyn (FYN3): sc-16. Western blot analysis of Fyn expression in non-transfected 293: sc-110760 (**A**), human Fyn transfected 293: sc-158527 (**B**) and NIH/3T3 (**C**) whole cell lysates.



Fyn (FYN3)-G: sc-16-G. Immunofluorescence staining of methanol-fixed NIH/3T3 cells transfected with Fyn showing membrane staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and nuclear staining of cells in germinal center and cells in non-germinal center (**B**).

SELECT PRODUCT CITATIONS

1. Wary, K.K., et al. 1998. Requirement for caveolin-1 and associated kinase Fyn in integrin signaling and anchorage-dependent cell growth. Cell 94: 625-634.
2. Jeschke, M., et al. 1998. Expression of Src family kinases and their putative substrates in the human preosteoclastic cell line FLG 29.1. J. Bone Miner. Res. 13: 1880-1889.
3. Narute, P.S. and Smithgall, T.E. 2012. Nef alleles from all major HIV-1 clades activate Src-family kinases and enhance HIV-1 replication in an inhibitor-sensitive manner. PLoS ONE 7: e32561.
4. Hinterleitner, R., et al. 2012. Adoptive transfer of siRNA Cblb-silenced $CD8^+$ T lymphocytes augments tumor vaccine efficacy in a B16 melanoma model. PLoS ONE 7: e44295.
5. Shih, C.H., et al. 2014. A critical role for the regulation of Syk from agglutination to aggregation in human platelets. Biochem. Biophys. Res. Commun. 443: 580-585.
6. Rizvi, F., et al. 2015. Suppression in PHLPP2 induction by morin promotes Nrf2-regulated cellular defenses against oxidative injury to primary rat hepatocytes. Redox Biol. 6: 587-598.

RESEARCH USE

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