

# Fyn (FYN-01): sc-51598

## 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.

## REFERENCES

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2. Hibbs, M.L., et al. 1997. Lyn, a Src-like tyrosine kinase. *Int. J. Biochem. Cell Biol.* 29: 397-400.
3. Williams, J.C., et al. 1998. Insights into Src kinase functions: structural comparisons. *Trends Biochem. Sci.* 23: 179-184.
4. Korade-Mirnic, Z., et al. 2000. Src kinase-mediated signaling in leukocytes. *J. Leukoc. Biol.* 68: 603-613.
5. Tatosyan, A., et al. 2000. Kinases of the Src family: structure and functions. *Biochemistry* 65: 49-58.
6. Bjorge, J.D., et al. 2000. Selected glimpses into the activation and function of Src kinase. *Oncogene* 19: 5620-5635.
7. Gilmore, E.S., et al. 2001. Src family kinases mediate epithelial Na<sup>+</sup> channel inhibition by endothelin. *J. Biol. Chem.* 276: 42610-42617.
8. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 137025. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
9. LocusLink Report (LocusID: 4067). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## CHROMOSOMAL LOCATION

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

## SOURCE

Fyn (FYN-01) is a mouse monoclonal antibody raised against amino acids 7-176 of Fyn of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

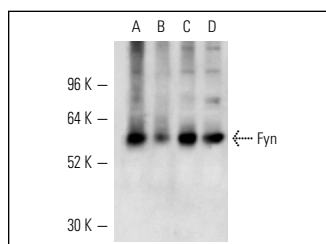
Fyn (FYN-01) is recommended for detection of Fyn of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for 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.

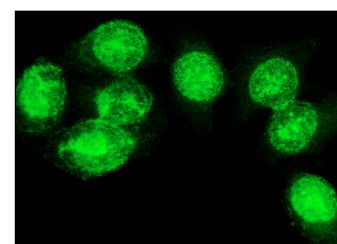
Molecular Weight of Fyn: 59 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HuT 78 whole cell lysate: sc-2208 or K-562 whole cell lysate: sc-2203.

## DATA



Fyn (FYN-01): sc-51598. Western blot analysis of Fyn expression in HuT 78 (A), NIH/3T3 (B), K-562 (C) and Jurkat (D) whole cell lysates.



Fyn (FYN-01): sc-51598. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and nuclear localization.

## SELECT PRODUCT CITATIONS

1. Lee, Y., et al. 2013. UNC119a bridges the transmission of Fyn signals to Rab11, leading to the completion of cytokinesis. *Cell Cycle* 12: 1303-1315.
2. Yang, F., et al. 2018. Allosteric mechanisms underlie GPCR signaling to SH3-domain proteins through arrestin. *Nat. Chem. Biol.* 14: 876-886.

## 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](http://www.scbt.com) for detailed protocols and support products.



See **Fyn (15): sc-434** for Fyn antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.