SANTA CRUZ BIOTECHNOLOGY, INC.

Fyn (h): 293T Lysate: sc-115186

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

1. Sakaguchi, A.Y., Naylor, S.L., Weinberg, R.A. and Shows, T.B. 1982. Organization of human proto-oncogenes. Am. J. Hum. Genet. 34: 175.
2. Williams, J.C., Wierenga, R.K. and Saraste, M. 1998. Insights into Src kinase functions: structural comparisons. Trends Biochem. Sci. 23: 179-184.
3. Tatosyan, A.G. and Mizenina, O.A. 2000. Kinases of the Src family: structure and functions. Biochemistry 65: 49-58.
4. Bjorge, J.D., Jakymiw, A. and Fujita, D.J. 2000. Selected glimpses into the activation and function of Src kinase. Oncogene 19: 5620-5635.
5. Korade-Mirnics, Z. and Corey, S.J. 2000. Src kinase-mediated signaling in leukocytes. J. Leukoc. Biol. 68:603-613.
6. Denny, M.F., Patai, B. and Straus, D.B. 2000. Differential T cell antigen receptor signaling mediated by the Src family kinases Lck and Fyn. Mol. Cell. Biol. 20: 1426-1435.
7. Gilmore, E.S., Stutts, M.J. and Milgram, S.L. 2001. SRC family kinases mediate epithelial Na^+ 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/

CHROMOSOMAL LOCATION

Genetic locus: FYN (human) mapping to 6q21.

PRODUCT

Fyn (h): 293T Lysate represents a lysate of human Fyn transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Fyn (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Fyn antibodies. Recommended use: 10-20 µl per lane.

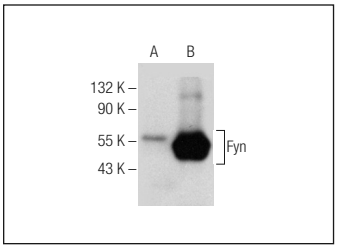
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Fyn (E-3): sc-365913 is recommended as a positive control antibody for Western Blot analysis of enhanced human Fyn expression in Fyn transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

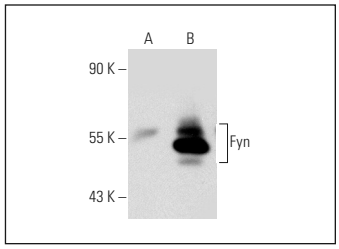
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Fyn (E-3): sc-365913. Western blot analysis of Fyn expression in non-transfected: sc-117752 (**A**) and human Fyn transfected: sc-115186 (**B**) 293T whole cell lysates.



Fyn (FYN-59): sc-73388. Western blot analysis of Fyn expression in non-transfected: sc-117752 (**A**) and human Fyn transfected: sc-115186 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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