

Fyn (E-12): sc-271294

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., et al. 1982. Organization of human proto-oncogenes. *Am. J. Hum. Genet.* 34: 175.
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. Tatosyan, A.G., et al. 2000. Kinases of the Src family: structure and functions. *Biochemistry* 65: 49-58.
5. Bjorge, J.D., et al. 2000. Selected glimpses into the activation and function of Src kinase. *Oncogene* 19: 5620-5635.
6. Korade-Mirnic, Z., et al. 2000. Src kinase-mediated signaling in leukocytes. *J. Leukoc. Biol.* 68: 603-613.

CHROMOSOMAL LOCATION

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

SOURCE

Fyn (E-12) is a mouse monoclonal antibody raised against amino acids 1-80 mapping at the N-terminus of Fyn of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

APPLICATIONS

Fyn (E-12) is recommended for detection of Fyn of mouse, rat and 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).

Fyn (E-12) is also recommended for detection of Fyn in additional species, including canine.

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.

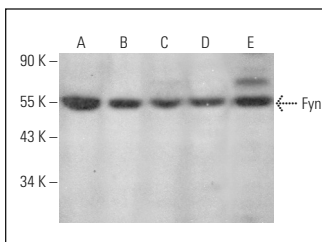
Molecular Weight of Fyn: 59 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

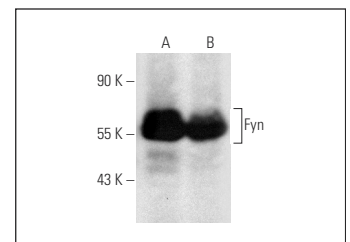
RECOMMENDED SUPPORT REAGENTS

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




Fyn (E-12): sc-271294. Western blot analysis of Fyn expression in HuT 78 (A), Jurkat (B), M1 (C) and Ramos (D) whole cell lysates and mouse brain tissue extract (E).



Fyn (E-12): sc-271294. Western blot analysis of Fyn expression in HeLa (A) and NIH/3T3 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sanchez-Martin, M., et al. 2017. Synergistic antileukemic therapies in NOTCH1-induced T-ALL. *Proc. Natl. Acad. Sci. USA* 114: 2006-2011.



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