

Fyn (15): sc-434

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.

CHROMOSOMAL LOCATION

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

SOURCE

Fyn (15) is a mouse monoclonal antibody raised against amino acids 85-206 of Fyn 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.

Fyn (15) is available conjugated to agarose (sc-434 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-434 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-434 PE), fluorescein (sc-434 FITC), Alexa Fluor[®] 488 (sc-434 AF488), Alexa Fluor[®] 546 (sc-434 AF546), Alexa Fluor[®] 594 (sc-434 AF594) or Alexa Fluor[®] 647 (sc-434 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-434 AF680) or Alexa Fluor[®] 790 (sc-434 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

RESEARCH USE

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

APPLICATIONS

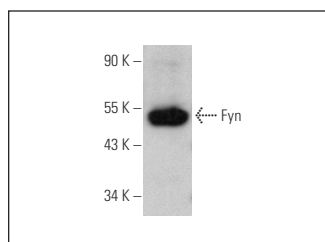
Fyn (15) is recommended for detection of Fyn p59 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

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.

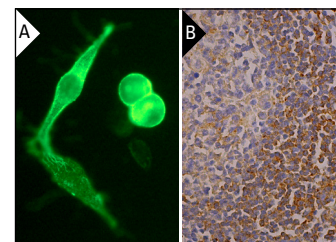
Molecular Weight of Fyn: 59 kDa.

Positive Controls: Ramos cell lysate: sc-2216, HuT 78 whole cell lysate: sc-2208 or K-562 whole cell lysate: sc-2203.

DATA



Fyn (15): sc-434. Western blot analysis of Fyn expression in Ramos whole cell lysate.



Fyn (15): sc-434. 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 staining of cells in germinal center and cells in non-germinal center (B).

SELECT PRODUCT CITATIONS

1. Sadoshima, J., et al. 1996. The heterotrimeric G_q protein-coupled angiotensin II receptor activates p21 Ras via the tyrosine kinase-Shc-Grb2-Sos pathway in cardiac myocytes. *EMBO J.* 15: 775-787.
2. Peckham, H., et al. 2016. Fyn is an intermediate kinase that BDNF utilizes to promote oligodendrocyte myelination. *Glia* 64: 255-269.
3. Chavez-Solano, M., et al. 2016. Fyn kinase genetic ablation causes structural abnormalities in mature retina and defective Müller cell function. *Mol. Cell. Neurosci.* 72: 91-100.
4. Hao, L., et al. 2016. Neuroprotective effects of inhibiting Fyn S-nitrosylation on cerebral ischemia/reperfusion-induced damage to CA1 hippocampal neurons. *Int. J. Mol. Sci.* 17 pii: E1100.

STORAGE

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