

# Fyn (E-3): sc-365913

## 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 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 28-57 at the N-terminus of Fyn of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Fyn (E-3) is available conjugated to agarose (sc-365913 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365913 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365913 PE), fluorescein (sc-365913 FITC), Alexa Fluor® 488 (sc-365913 AF488), Alexa Fluor® 546 (sc-365913 AF546), Alexa Fluor® 594 (sc-365913 AF594) or Alexa Fluor® 647 (sc-365913 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365913 AF680) or Alexa Fluor® 790 (sc-365913 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365913 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

Fyn (E-3) 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).

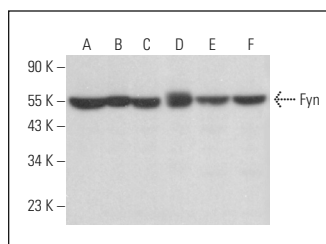
Fyn (E-3) is also recommended for detection of Fyn in additional species, including canine, bovine, porcine and avian.

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.

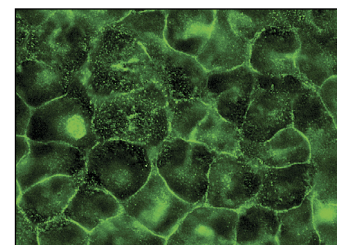
Molecular Weight of Fyn: 59 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, C2C12 whole cell lysate: sc-364188 or Neuro-2A whole cell lysate: sc-364185.

## DATA



Fyn (E-3): sc-365913. Western blot analysis of Fyn expression in Jurkat (A), IMR-32 (B), SUP-T1 (C), BYDP (D), C2C12 (E) and Neuro-2A (F) whole cell lysates.



Fyn (E-3): sc-365913. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

## SELECT PRODUCT CITATIONS

- Kortum, R.L., et al. 2013. A phospholipase C-γ1-independent, RasGRP1-ERK-dependent pathway drives lymphoproliferative disease in linker for activation of T cells-Y136F mutant mice. *J. Immunol.* 190: 147-158.
- Chattopadhyay, R., et al. 2017. Resolvin D1 via prevention of Ros-mediated SHP2 inactivation protects endothelial adherens junction integrity and barrier function. *Redox Biol.* 12: 438-455.
- Zhu, D., et al. 2020. Angiotensin (1-7) through modulation of the NMDAR-nNOS-NO pathway and serotonergic metabolism exerts an anxiolytic-like effect in rats. *Behav. Brain Res.* 390: 112671.
- Onder, S., et al. 2022. Toluidine blue O attenuates tau phosphorylation in N2a-APP<sub>Sw</sub> cells. *Chem. Biol. Interact.* 366: 110126.
- Chen, G., et al. 2023. Fibroblast growth factor 18 alleviates stress-induced pathological cardiac hypertrophy in male mice. *Nat. Commun.* 14: 1235.

## RESEARCH USE

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