

c-Fgr (C-1): sc-17

BACKGROUND

Src is the human homolog of the v-Src gene of the Rous sarcoma virus, also designated avian sarcoma virus or ASV. Src was the first proto-oncogenic non-receptor tyrosine kinase characterized in human. The Src family, which has common structural motifs, 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, which are involved in modular association and activation, respectively. Src-family kinases, which 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. c-Fgr is a human non-receptor tyrosine kinase family member that was discovered by using a probe toward the v-Fgr portion of the cell-derived domain of Gardner-Rasheed feline sarcoma virus. The human c-Fgr gene encodes a 529 amino acid protein.

CHROMOSOMAL LOCATION

Genetic locus: FGR (human) mapping to 1p36.11; Fgr (mouse) mapping to 4 D2.3.

SOURCE

c-Fgr (C-1) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of c-Fgr of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

c-Fgr (C-1) is recommended for detection of c-Fgr p55 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with other Src family members.

c-Fgr (C-1) is also recommended for detection of c-Fgr p55 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for c-Fgr siRNA (h): sc-39229, c-Fgr siRNA (m): sc-39230, c-Fgr shRNA Plasmid (h): sc-39229-SH, c-Fgr shRNA Plasmid (m): sc-39230-SH, c-Fgr shRNA (h) Lentiviral Particles: sc-39229-V and c-Fgr shRNA (m) Lentiviral Particles: sc-39230-V.

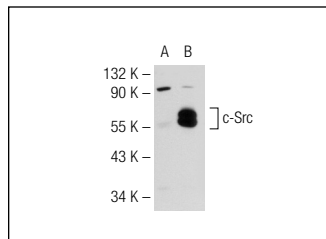
Molecular Weight of c-Fgr: 55 kDa.

Positive Controls: c-Src (h): 293T Lysate: sc-176936.

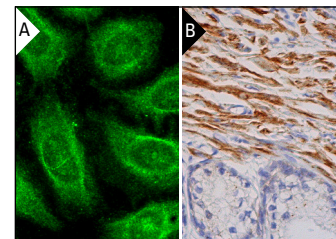
STORAGE

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

DATA



c-Fgr (C-1): sc-17. Western blot analysis of c-Src expression in non-transfected: sc-117752 (A) and human c-Src transfected: sc-176936 (B) 293T whole cell lysates.



c-Fgr (C-1): sc-17. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing cytoplasmic staining of smooth muscle cells (B).

SELECT PRODUCT CITATIONS

1. Brunati, A.M., et al. 1993. Isolation and identification of two proto-oncogene products related to c-Fgr and Fyn in a tyrosine-protein-kinase fraction of rat spleen. *Eur. J. Biochem.* 216: 323-327.
2. Mehlmann, L.M., et al. 2005. SH2 domain-mediated activation of an Src family kinase is not required to initiate Ca²⁺ release at fertilization in mouse eggs. *Reproduction* 129: 557-564.
3. Heiss, E., et al. 2006. Identification of Y589 and Y599 in the juxtamembrane domain of Flt3 as ligand-induced autophosphorylation sites involved in binding of Src family kinases and the protein tyrosine phosphatase SHP2. *Blood* 108: 1542-1550.
4. Tribble, R.P., et al. 2006. HIV-1 Nef selectively activates Src family kinases Hck, Lyn, and c-Src through direct SH3 domain interaction. *J. Biol. Chem.* 281: 27029-27038.
5. Cross, J.L., et al. 2008. CD45 regulates TLR-induced proinflammatory cytokine and IFN-β secretion in dendritic cells. *J. Immunol.* 180: 8020-8029.
6. Duan, W., et al. 2010. Mutant TAR DNA-binding protein-43 induces oxidative injury in motor neuron-like cell. *Neuroscience* 169: 1621-1629.
7. Narute, P.S., et al. 2012. Nef alleles from all major HIV-1 clades activate Src-family kinases and enhance HIV-1 replication in an inhibitor-sensitive manner. *PLoS ONE* 7: e32561.

RESEARCH USE

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

MONOS
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Try **c-Fgr (B-8): sc-166079** or **c-Fgr (D-6): sc-74542**, our highly recommended monoclonal alternatives to c-Fgr (C-1).