SANTA CRUZ BIOTECHNOLOGY, INC.

c-Src (5D10C4): sc-130074

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The major translational products of the Src gene family are membrane-associated tyrosine protein kinases that lack transmembrane and external amino acid sequences. By virtue of their common structural motifs, the Src family is composed of nine members in vertebrates, including c-Src, c-Yes, c-Fgr, Yrk, Fyn, Lyn, Hck, Lck and Blk. Src family kinases, which contain an amino-terminal cell membrane anchor followed by SH3 and SH2 domains, transduce signals that are involved in the control of a variety of cellular processes, including proliferation, differentiation, motility and adhesion. Src family members are normally maintained in an inactive state and can be activated transiently during cellular events such as mitosis. Different subcellular locations of Src family kinases may be important for the regulation of specific cellular processes, such as mitogenesis, cytoskeletal organization and membrane trafficking. c-Src (also designated pp60Src, Src p60 and proto-oncogene tyrosine protein kinase Src) is expressed in a broad range of tissue and cell types, although the highest levels of c-Src are detected in neuronal tissues and platelets. c-Src may play a role in events associated with both neuronal differentiation and maintenance of mature neuronal cell functions.

REFERENCES

1. Sakaguchi, A.Y. 1983. Organization of human proto-oncogenes. Prog. Clin. Biol. Res. 119: 93-103.
2. Brugge, J.S., et al. 1985. Neurons express high levels ofstructurally modified, activated form of pp60Src. Nature 316: 554-557.
3. Golden, A., et al. 1986. Bloodplatelets express high levels of thepp60Src-specific tyrosine kinase activity. Proc. Natl. Acad. Sci. USA 83: 852-856.
4. Cartwright, C.A., et al. 1987. Alterations in pp60Src accompany differentiation of neurons from rat embryo striatum. Mol. Cell. Biol. 7: 1830-1840.
5. Wiestler, O.D., et al. 1988. Developmental expression of two forms of pp60Src in mouse brain. Mol. Cell. Biol. 8: 502-504.

CHROMOSOMAL LOCATION

Genetic locus: SRC (human) mapping to 20q11.23; Src (mouse) mapping to 2 H1.

SOURCE

c-Src (5D10C4) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 10-193 of c-Src of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} 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

c-Src (5D10C4) is recommended for detection of c-Src of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for c-Src siRNA (h): sc-29228, c-Src siRNA (m): sc-29859, c-Src siRNA (r): sc-270199, c-Src shRNA Plasmid (h): sc-29228-SH, c-Src shRNA Plasmid (m): sc-29859-SH, c-Src shRNA Plasmid (r): sc-270199-SH, c-Src shRNA (h) Lentiviral Particles: sc-29228-V, c-Src shRNA (m) Lentiviral Particles: sc-29859-V and c-Src shRNA (r) Lentiviral Particles: sc-270199-V.

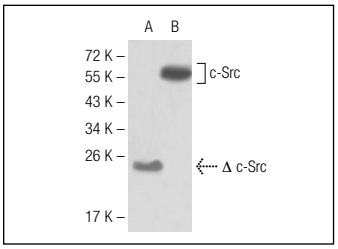
Molecular Weight of c-Src: 60 kDa.

Positive Controls: 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.

DATA



c-Src (5D10C4): sc-130074. Western blot analysis of truncated human recombinant c-Src-His protein (**A**) and c-Src expression in PMA treated THP-1 whole cell lysate (**B**).

SELECT PRODUCT CITATIONS

1. Guo, B., et al. 2015. Naringin suppresses the metabolism of A375 cells by inhibiting the phosphorylation of c-Src. Tumour Biol. 37: 3841-3850.
2. Megiorni, F., et al. 2017. Pharmacological targeting of the ephrin receptor kinase signalling by GLPG1790 *in vitro* and *in vivo* reverts oncophenotype, induces myogenic differentiation and radiosensitizes embryonal rhabdomyosarcoma cells. J. Hematol. Oncol. 10: 161.

CONJUGATES

See **c-Src (B-12): sc-8056** for c-Src antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488, Alexa Fluor® 594, Alexa Fluor® 647, Alexa Fluor® 680 and Alexa Fluor® 790.