

# p-c-Src (pY530.31): sc-136012

## 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, 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. 1982. Organization of human proto-oncogenes. *Prog. Clin. Biol. Res.* 119: 93-103.
2. Brugge, J.S., Cotton, P.C., Queral, A.E., Barret, J.N., Nonner, D. and Keane, R.W. 1985. Neurons express high levels of structurally modified, activated form of pp60c-Src. *Nature* 316: 554-557.
3. Golden, A., Nemeth, S.P. and Brugge, J.S. 1986. Blood platelets express high levels of the pp60c-Src-specific tyrosine kinase activity. *Proc. Natl. Acad. Sci. USA* 83: 852-856.
4. Cartwright, C.A., Simantov, R., Kaplan, P.L., Hunter, T. and Eckhart, W. 1987. Alterations in pp60c-Src accompany differentiation of neurons from rat embryo striatum. *Mol. Cell. Biol.* 7: 1830-1840.
5. Wiestler, O.D. and Walter, G. 1988. Developmental expression of two forms of pp60c-Src in mouse brain. *Mol. Cell. Biol.* 8: 502-504.
6. Eiseman, E. and Bolen, J.B. 1990. Src-related tyrosine protein kinases as signaling components in hematopoietic cells. *Cancer Cells* 2: 303-310.

## CHROMOSOMAL LOCATION

Genetic locus: SRC (human) mapping to 20q11.23, FYN (human) mapping to 6q21; Src (mouse) mapping to 2 H1, Fyn (mouse) mapping to 10 B1.

## SOURCE

p-c-Src (pY530.31) is a mouse monoclonal antibody raised against a short amino acid sequence containing Tyr 528 phosphorylated Fyn of human origin.

## PRODUCT

Each vial contains 50 µg IgG<sub>2b</sub> in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

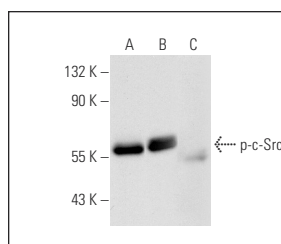
## APPLICATIONS

p-c-Src (pY530.31) is recommended for detection of Tyr 530 phosphorylated c-Src of human origin, Tyr 535 phosphorylated c-Src of mouse origin, and Tyr 528 phosphorylated Fyn of human and mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

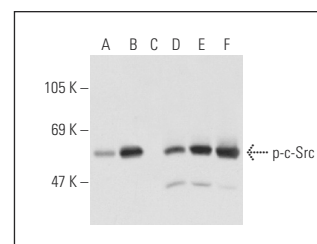
Molecular Weight of p-c-Src: 60 kDa.

Positive Controls: Jurkat + pervanadate cell lysate: sc-24716, A-431 + EGF whole cell lysate: sc-2202 or A549 cell lysate: sc-2413.

## DATA



p-c-Src (pY530.31): sc-136012. Western blot analysis of c-Src phosphorylation in untreated (A), EGF treated (B) and EGF and lambda protein phosphatase treated (C) HEK293 whole cell lysates.



Western blot analysis of c-Src phosphorylation in untreated (A,D), serum starved and EGF treated (B,E) and serum starved, EGF and lambda protein phosphatase treated (C,F) HEK293 whole cell lysates. Antibodies tested include p-c-Src (pY530.31): sc-136012 (A,B,C) and c-Src (17AT28): sc-130124 (D,E,F).

## 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. Not for resale.

## PROTOCOLS

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