

# c-Src (H-12): sc-5266

## 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., et al. 1982. Organization of human proto-oncogenes. *Am. J. Hum. Genet.* 34: 175.
2. Brugge, J.S., et al. 1985. Neurons express high levels of structurally modified, activated form of pp60Src. *Nature* 316: 554-557.

## CHROMOSOMAL LOCATION

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

## SOURCE

c-Src (H-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-30 at the N-terminus of c-Src p60 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

c-Src (H-12) is available conjugated to agarose (sc-5266 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-5266 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-5266 PE), fluorescein (sc-5266 FITC), Alexa Fluor® 488 (sc-5266 AF488), Alexa Fluor® 546 (sc-5266 AF546), Alexa Fluor® 594 (sc-5266 AF594) or Alexa Fluor® 647 (sc-5266 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-5266 AF680) or Alexa Fluor® 790 (sc-5266 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-5266 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## RESEARCH USE

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

## APPLICATIONS

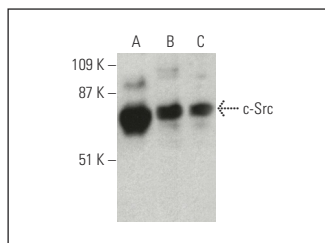
c-Src (H-12) is recommended for detection of c-Src of mouse, rat, human and avian origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution 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).

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.

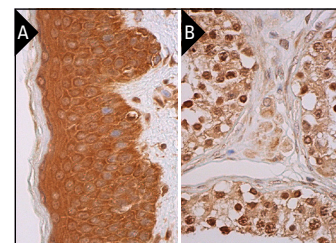
Molecular Weight of c-Src: 60 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

## DATA



c-Src (H-12) HRP: sc-5266 HRP. Direct western blot analysis of c-Src expression in NIH/3T3 (A), HeLa (B) and Jurkat (C) whole cell lysates.



c-Src (H-12): sc-5266. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing nuclear and cytoplasmic staining of keratinocytes, fibroblasts, Langerhans cells and melanocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells (B).

## SELECT PRODUCT CITATIONS

1. Angenstein, F., et al. 2002. A receptor for activated C kinase is part of messenger ribonucleoprotein complexes associated with polyA-mRNAs in neurons. *J. Neurosci.* 22: 8827-8837.
2. Mondaca, J.M., et al. 2021. Molecular basis of LH action on breast cancer cell migration and invasion via kinase and scaffold proteins. *Front. Cell Dev. Biol.* 8: 630147.
3. Castro-Guijarro, A.C., et al. 2022. Combination treatment of retinoic acid plus focal adhesion kinase inhibitor prevents tumor growth and breast cancer cell metastasis. *Cells* 11: 2988.

## STORAGE

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