SANTA CRUZ BIOTECHNOLOGY, INC.

p-c-Src (Tyr 139)-R: sc-12928-R

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, 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.

CHROMOSOMAL LOCATION

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

SOURCE

p-c-Src (Tyr 139)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 139 phosphorylated c-Src p60 of human 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-12928 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-c-Src (Tyr 139)-R is recommended for detection of Tyr 139 phosphorylated c-Src of human and rat origin, and Tyr 144 phosphorylated c-Src of mouse 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-c-Src (Tyr 139)-R is also recommended for detection of correspondingly phosphorylated c-Src in additional species, including canine.

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

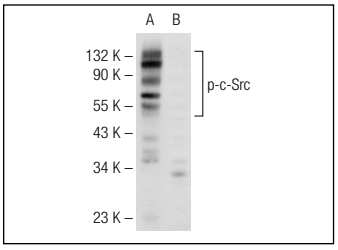
Molecular Weight of p-c-Src: 60 kDa.

Positive Controls: NIH/3T3 + PDGF cell lysate: sc-3803 or Jurkat + pervanadate cell lysate: sc-24716.

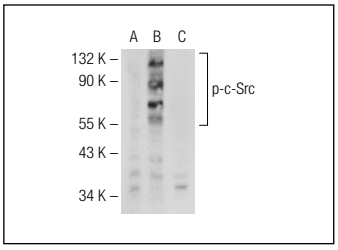
STORAGE

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

DATA



p-c-Src (Tyr 139)-R: sc-12928-R. Western blot analysis of c-Src phosphorylation in pervanadate treated (**A**) and pervanadate and lambda protein phosphatase (sc-200312A) treated (**B**) Jurkat whole cell lysates.



p-c-Src (Tyr 139)-R: sc-12928-R. Western blot analysis of c-Src phosphorylation in untreated (**A**), pervanadate treated (**B**) and pervanadate and lambda protein phosphatase (sc-200312A) treated (**C**) Jurkat whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chandrasekar, B. 2005. The pro-atherogenic cytokine interleukin-18 induces CXCL16 expression in rat aortic smooth muscle cells via MyD88, interleukin-1 receptor-associated kinase, tumor necrosis factor receptor-associated factor 6, c-Src, phosphatidylinositol 3-kinase, Akt, c-Jun N-terminal kinase, and activator protein-1 signaling. J. Biol. Chem. 280: 26263-26277.
2. Tung, W.H., et al. 2011. Enterovirus 71 modulates a COX-2/PGE2/cAMP-dependent viral replication in human neuroblastoma cells: role of the c-Src/EGFR/p42/p44 MAPK/CREB signaling pathway. J. Cell. Biochem. 112: 559-570.
3. Huang, C.Y., et al. 2012. Thrombin induces epidermal growth factor receptor transactivation and CCL2 expression in human osteoblasts. Arthritis Rheum. 64: 3344-3354.
4. Lin, T.H., et al. 2013. CCL2 increases $\alpha v\beta 3$ integrin expression and subsequently promotes prostate cancer migration. Biochim. Biophys. Acta 1830: 4917-4927.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.