SANTA CRUZ BIOTECHNOLOGY, INC.

p-c-Src (9A6): sc-81521

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 (9A6) is a mouse monoclonal antibody raised against a synthetic phosphopeptide corresponding to amino acids 416-422 of c-Src of human origin.

PRODUCT

Each vial contains 50 µg IgG_3 in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, PEG and sucrose.

APPLICATIONS

p-c-Src (9A6) is recommended for detection of Tyr 419 phosphorylated c-Src of human origin and Tyr 424 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 flow cytometry (1 µg per 1 x 10^6 cells).

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.

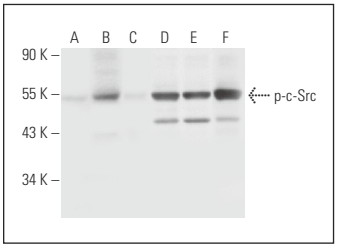
Molecular Weight of p-c-Src: 60 kDa.

Positive Controls: A549 cell lysate: sc-2413, HEK293 whole cell lysate: sc-45136 or Jurkat whole cell lysate: sc-2204.

STORAGE

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

DATA



Western blot analysis of c-Src phosphorylation in untreated (**A**,**D**), prevanadate treated (**B**,**E**) and prevanadate and lambda protein phosphatase treated (**C**,**F**) Jurkat whole cell lysates. Antibodies tested include p-c-Src (9A6): sc-81521 (**A**,**B**,**C**) and c-Src (17AT28): sc-130124 (**D**,**E**,**F**).

SELECT PRODUCT CITATIONS

1. Chen, J.X., et al. 2011. Involvement of c-Src/STAT3 signal in EGF-induced proliferation of rat spermatogonial stem cells. Mol. Cell. Biochem. 358: 67-73.
3. Wang, X., et al. 2013. ER-α36-mediated gastric cancer cell proliferation via the c-Src pathway. Oncol. Lett. 6: 329-335.
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6. Matsuoka, H. and Inoue, M. 2015. Src mediates endocytosis of TWIK-related acid-sensitive K^+ 1 channels in PC12 cells in response to nerve growth factor. Am. J. Physiol. Cell Physiol. 309: C251-C263.
7. Miyamoto, Y., et al. 2015. Involvement of the Tyro3 receptor and its intracellular partner Fyn signaling in Schwann cell myelination. Mol. Biol. Cell 26: 3489-3503.
6. Randolph, M.E., et al. 2017. EphB4/EphrinB2 therapeutics in Rhabdomyosarcoma. PLoS ONE 12: e0183161.
7. Lee, J.H., et al. 2018. Tescalcin/c-Src/IGF1Rβ-mediated STAT3 activation enhances cancer stemness and radioresistant properties through ALDH1. Sci. Rep. 8: 10711.
8. Matsuoka, H., et al. 2019. Muscarinic receptor stimulation induces TASK1 channel endocytosis through a PKC-Pyk2-Src pathway in PC12 cells. Cell. Signal. 65: 109434.
9. Le, H.T.T., et al. 2020. *Synedrella nodiflora (Linn.) Gaertn.* inhibits inflammatory responses through the regulation of Syk in RAW 264.7 macrophages. Exp. Ther. Med. 20: 1153-1162.

RESEARCH USE

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