

p-c-Src (Thr 420)-R: sc-16845-R

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. Brugge, J.S., et al. 1985. Neurons express high levels of structurally modified, activated form of pp60Src. *Nature* 316: 554-557.
2. Golden, A., et al. 1986. Blood platelets express high levels of the pp60Src-specific tyrosine kinase activity. *Proc. Natl. Acad. Sci. USA* 83: 852-856.
3. Cartwright, C.A., et al. 1987. Alterations in pp60Src accompany differentiation of neurons from rat embryo striatum. *Mol. Cell. Biol.* 7: 1830-1840.
4. Wiestler, O.D. and Walter, G. 1988. Developmental expression of two forms of pp60Src in mouse brain. *Mol. Cell. Biol.* 8: 502-504.
5. Eiseman, E. and Bolen, J.B. 1990. Src-related tyrosine protein kinases as signaling components in hematopoietic cells. *Cancer Cells* 2: 303-310.
6. Bolen, J.B., et al. 1991. Expression and interactions of the Src family of tyrosine protein kinases in T lymphocytes. *Adv. Cancer Res.* 57: 103-149.

SOURCE

p-c-Src (Thr 420)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Thr 420 phosphorylated c-Src 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-16845 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

p-c-Src (Thr 420)-R is recommended for detection of Tyr 420 phosphorylated c-Src of human and rat origin, Tyr 425 phosphorylated c-Src of mouse origin, and Tyr 417 phosphorylated c-Src of chicken 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); also recommended for detection of correspondingly phosphorylated Fyn and c-Yes.

p-c-Src (Thr 420)-R is also recommended for detection of correspondingly phosphorylated c-Src in additional species, including equine, canine, bovine, porcine and avian.

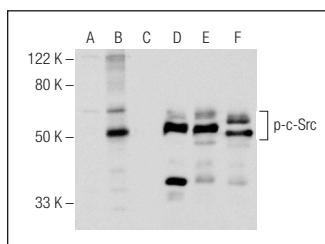
Molecular Weight of p-c-Src: 60 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of c-Src phosphorylation in untreated (A, D), Ser/Thr induction cocktail (sc-362324) treated (B, E) and Ser/Thr induction cocktail (sc-362324) and lambda protein phosphatase (sc-200312A) treated (C, F) Jurkat whole cell lysates. Antibodies tested include p-c-Src (Thr 420)-R: sc-16845-R (A, B, C) and c-Src (B-12): sc-8056 (D, E, F).

PROTOCOLS

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