c-Src (Tyr-215), phospho-specific [Conserved site]

Background:

c-Src was the first proto-oncogenic non-receptor tyrosine kinase characterized in human. The Src family is composed of nine members in vertebrates, including c-Src, Yes, Fgr, Yrk, Fyn, Lyn, Hck, Lck, and Blk. Src-family kinases transduce signals that are involved in the control of a variety of cellular processes, including proliferation, differentiation, motility, and adhesion. Src-family kinases contain an N-terminal cell membrane anchor followed by SH3 and SH2 domains. The activity of c-Src is regulated by tyrosine phosphorylation at multiple sites. Tyrosine 419 is autophosphorylated following c-Src activation. Tyrosine 215 in the SH2 domain of c-Src is phosphorylated following growth factor receptor activation. Both Tyr-215 and Tyr-419 phosphorylation increases tyrosine kinase activity, while phosphorylation of Tyr-530 downregulates c-Src kinase activity. Thus, tyrosine phosphorylation of c-Src is critical for regulating its kinase activity.

References

Stover, D.R. et al. (1996) J Biol Chem 271(21):12481. Vadlamudi, R.K. et al. (2003) FEBS Letters 543:76.

Cat. # SP1371 Host Rabbit Polyclonal Size 100 μl



Western blot analysis of mouse SYF cells transformed with c-Src then left untreated (lanes 1, 3, & 5) or treated with pervanadate (1 mM) for 30 minutes (lanes 2, 4, & 6). The blot was probed with anti-c-Src (Tyr-215) (lanes 1 & 2), anti-c-Src (N-terminal region) (lanes 3 & 4), and anti-c-Src (Tyr-530) (lanes 5 & 6).

Immunogen:

c-Src (Tyr-215) synthetic peptide (coupled to KLH) corresponding to amino acid residues around tyrosine 215 of human c-Src. This sequence has homology to the conserved site in other Src family members, such as hck, fyn, csk, and yes.

Applications:

WB	1:1000
ELISA	1:2000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

Related Products:

SM2591	c-Src (N-terminal region) Mouse Monoclonal
SM2611	c-Src (Tyr-530), phospho-specific [Conserved site] Mouse Monoclonal
CM2471	Csk (N-terminal region) Mouse Monoclonal
FM2381	Fyn (N-terminal region) Mouse Monoclonal
LM2541	Lck (N-terminal region) Mouse Monoclonal
YM2501	Yes (N-terminal region) Mouse Monoclonal

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 μ l phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at –20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was cross-adsorbed to phospho-tyrosine coupled to agarose then affinity purified using phosphoc-Src (Tyr-215) peptide (without carrier). The antibody detects a 60 kDa* protein on SDS-PAGE immunoblots of mouse SYF cells transformed with c-Src and human A431 cells that have been treated with pervanadate. It is recommended that the antibody be used to detect phosphorylated Src family members at their respective conserved site by using immunoprecipitation with specific Src family antibodies.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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