SANTA CRUZ BIOTECHNOLOGY, INC.

Csk (m): 293T Lysate: sc-119481

BACKGROUND

All members of the Src gene family of tyrosine kinases are characterized by a carboxy-terminal domain tyrosine which is highly phosphorylated in the inactive form of the enzyme and phosphorylated to a much lesser extent when the enzyme is active. In the case of Src p60, Y527 is this tyrosine; however, a mutant form of c-Src in which Y527 is replaced by phenylalanine is transforming and displays 5- to 10-fold elevated kinase activity compared to its normal counterpart. Csk has been identified as an Src-related tyrosine kinase having both SH2 and SH3 domains and a catalytic domain, but lacking sequences amino-terminal to the SH3 domain as well as carboxy-terminal regulatory sequences. Csk phosphorylates Src on Y527 and also downregulates Lyn, Fyn and Lck by tyrosine phosphorylation of carboxy-terminal regulatory sites.

REFERENCES

1. Okada, M. and Nakagawa, H. 1989. A protein tyrosine kinase involved in regulation of pp60c-Src function. J. Biol. Chem. 264: 20886-20893.
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3. Cooper, J.A. and Howell, B. 1993. The when and how of Src regulation. Cell 73: 1051-1054.
4. Imamoto, A. and Sorlano, P. 1993. Disruption of the Csk gene, encoding a negative regulator of Src family tyrosine kinases, leads to neural tube defects and embryonic lethality in mice. Cell 73: 1117-1124.
5. Nada, S., Yagi, T., Takeda, H., Tokunaga, T., Nakagawa, H., Ikawa, Y., Okada, M. and Aizawa, S. 1993. Constitutive activation of Src family kinases in mouse embryos that lack Csk. Cell 73: 1125-1135.
6. Superti-Furga, G., Fumagalli, S., Koegl, M., Courtneidge, S.A. and Draetta, G. 1993. Csk inhibition of c-Src activity requires both the SH2 and SH3 domains of Src. EMBO J. 12: 2625-2634.
7. Chow, L.M., Fournel, M., Davidson, D. and Viellette, A. 1993. Negative regulation of T cell receptor signalling by tyrosine protein kinase p50 Csk. Nature 365: 156-159.
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CHROMOSOMAL LOCATION

Genetic locus: Csk (mouse) mapping to 9 B.

PRODUCT

Csk (m): 293T Lysate represents a lysate of mouse Csk transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Csk (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Csk antibodies. Recommended use: 10-20 µl per lane.

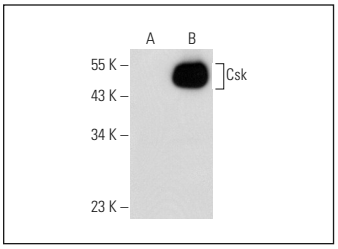
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Csk (E-3): sc-166560 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Csk expression in Csk transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

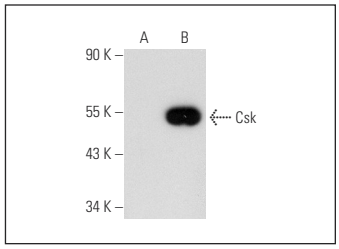
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Csk (E-3): sc-166560. Western blot analysis of Csk expression in non-transfected: sc-117752 (**A**) and mouse Csk transfected: sc-119481 (**B**) 293T whole cell lysates.



Csk (B-7): sc-166513. Western blot analysis of Csk expression in non-transfected: sc-117752 (**A**) and mouse Csk transfected: sc-119481 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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