

Crk II (h): 293 Lysate: sc-110474

BACKGROUND

The Crk family of adapter proteins including Crk-II, Crk-I, and Crk-L consist mostly of SH2 and SH3 domains. Through the interactions between SH2 domain and phosphotyrosine residues and/or between SH3 domain and proline-rich motifs, they are involved in a variety of signaling cascades. Crk I and Crk II are encoded by the same gene, which undergoes alternative splicing to yield these two proteins, but differ in their biological activities. Crk-II has less transforming activity than Crk-I, although both Crk-I and Crk-II bind to many tyrosine-phosphorylated proteins that bind to grb2. In addition, Crk-II becomes rapidly tyrosine-phosphorylated in response to stimulation with Insulin-like growth factor I (IGF-I) and might be involved in the IGF-I receptor signalling pathway. The gene encoding Crk I and II maps to human chromosome 17p13.3, a region which demonstrates frequent deletion or loss of heterozygosity in a wide range of human cancers.

REFERENCES

1. Mayer, B.J. and Hanafusa, H. 1990. Association of the v-Crk oncogene product with phosphotyrosine-containing proteins and protein kinase activity. *Proc. Natl. Acad. Sci. USA* 87: 2638-2642.
2. Matsuda, M., et al. 1990. Binding of transforming protein, p47Gag-Crk, to a broad range of phosphotyrosine-containing proteins. *Science* 248: 1537-1539.
3. Mayer, B.J. and Hanafusa, H. 1990. Mutagenic analysis of the v-Crk oncogene: requirement for SH2 and SH3 domains, and correlation between increased cellular phosphotyrosine and transformation. *J. Virol.* 64: 3581-3589.
4. Matsuda, M., et al. 1992. Two species of human Crk cDNA encode proteins with distinct biological activities. *Mol. Cell. Biol.* 12: 3482-3489.
5. Matsuda, M., et al. 1992. Biological and biochemical activity of v-Crk chimeras containing the SH2/SH3 regions of phosphatidylinositol-specific phospholipase C γ and Src. *J. Virol.* 66: 115-121.
6. Tanaka, S., et al. 1993. Both the SH2 and SH3 domains of human Crk protein are required for neuronal differentiation of PC12 cells. *Mol. Cell. Biol.* 13: 4409-4415.
7. Birge, R.B., et al. 1993. Identification and characterization of a high-affinity interaction between v-Crk and tyrosine-phosphorylated paxillin in CT10-transformed fibroblasts. *Mol. Cell. Biol.* 13: 4648-4656.

CHROMOSOMAL LOCATION

Genetic locus: CRK (human) mapping to 17p13.3.

PRODUCT

Crk II (h): 293 Lysate represents a lysate of human Crk II transfected 293 cells and is provided as 100 μ g protein in 200 μ l 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

Crk II (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Crk II antibodies. Recommended use: 10-20 μ l per lane.

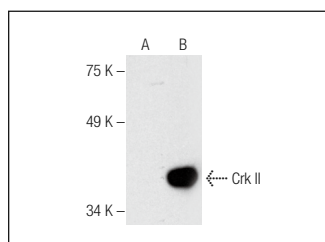
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Crk II (B-4): sc-390132 is recommended as a positive control antibody for Western Blot analysis of enhanced human Crk II expression in Crk II transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

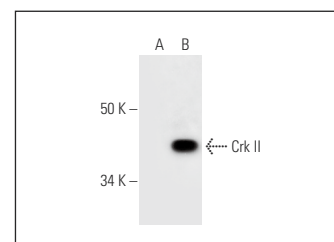
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



Crk II (B-4): sc-390132. Western blot analysis of Crk II expression in non-transfected: sc-110760 (A) and human Crk II transfected: sc-110474 (B) 293 whole cell lysates.



Crk I/II (D-6): sc-393160. Western blot analysis of Crk II expression in non-transfected: sc-110760 (A) and human Crk II transfected: sc-110474 (B) 293 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.