

# Crk II (2210C1a): sc-81234

## 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 signaling pathway. The gene encoding Crk I and II maps to human chromosome 17p13, a region which demonstrates frequent deletion or loss of heterozygosity in a wide range of human cancers.

## REFERENCES

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2. Matsuda, M., Mayer, B.J., Fukui, Y. and Hanafusa, H. 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., Tanaka, S., Nagata, S., Kojima, A., Kurata, T. and Shibuya, M. 1992. Two species of human CRK cDNA encode proteins with distinct biological activities. *Mol. Cell. Biol.* 12: 3482-3489.
5. Matsuda, M., Reichman, C.T. and Hanafusa, H. 1992. Biological and biochemical activity of v-Crk chimeras containing the SH2/SH3 regions of phosphatidylinositol-specific phospholipase C-g and Src. *J. Virol.* 66: 115-121.
6. Tanaka, S., Hattori, S., Kurata, T., Nagashima, K., Fukui, Y., Nakamura, S. and Matsuda, M. 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., Fajardo, J.E., Reichman, C., Shoelson, S.E., Songyang, Z., Cantley, L.C. and Hanafusa, H. 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.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## CHROMOSOMAL LOCATION

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

## SOURCE

Crk II (2210C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the C-terminus of Crk II of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## APPLICATIONS

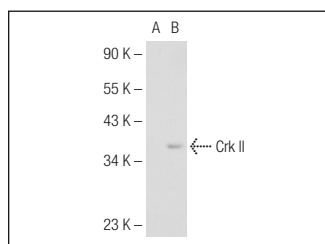
Crk II (2210C1a) is recommended for detection of Crk II of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Crk II siRNA (h): sc-37072, Crk II shRNA Plasmid (h): sc-37072-SH and Crk II shRNA (h) Lentiviral Particles: sc-37072-V.

Molecular Weight of Crk II isoforms: 40/42 kDa.

Positive Controls: Crk II (h): 293 Lysate: sc-110474, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

## DATA



Crk II (2210C1a): sc-81234. 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.