

Crk II (B-4): sc-390132

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.

CHROMOSOMAL LOCATION

Genetic locus: CRK (human) mapping to 17p13.3; Crk (mouse) mapping to 11 B5.

SOURCE

Crk II (B-4) is a mouse monoclonal antibody raised against amino acids 190-242 of Crk II of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Crk II (B-4) is available conjugated to agarose (sc-390132 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390132 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390132 PE), fluorescein (sc-390132 FITC), Alexa Fluor[®] 488 (sc-390132 AF488), Alexa Fluor[®] 546 (sc-390132 AF546), Alexa Fluor[®] 594 (sc-390132 AF594) or Alexa Fluor[®] 647 (sc-390132 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390132 AF680) or Alexa Fluor[®] 790 (sc-390132 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

Crk II (B-4) is recommended for detection of Crk II of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Crk II siRNA (h): sc-37072, Crk II siRNA (m): sc-44854, Crk II shRNA Plasmid (h): sc-37072-SH, Crk II shRNA Plasmid (m): sc-44854-SH, Crk II shRNA (h) Lentiviral Particles: sc-37072-V and Crk II shRNA (m) Lentiviral Particles: sc-44854-V.

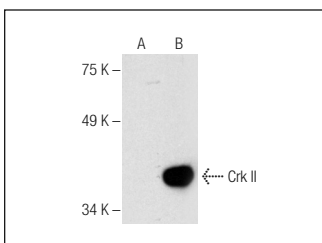
Molecular Weight of Crk II isoforms: 40/42 kDa.

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

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

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.

SELECT PRODUCT CITATIONS

1. Wetzel, D.M., et al. 2012. The Abl and Arg kinases mediate distinct modes of phagocytosis and are required for maximal *Leishmania* infection. *Mol. Cell. Biol.* 32: 3176-3186.
2. Nabekura, T., et al. 2018. Crk adaptor proteins regulate NK cell expansion and differentiation during mouse cytomegalovirus infection. *J. Immunol.* 200: 3420-3428.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.