

Crk I/II (D-6): sc-393160

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 (2-4). 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 (2,4). 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. Matsuda, M., et al. 1992. Two species of human CRK cDNA encode proteins with distinct biological activities. *Mol. Cell. Biol.* 12: 3482-3489.
2. Fioretos, T., et al. 1993. Crk proto-oncogene maps to human chromosome band 17p13. *Oncogene* 10: 2853-2855.
3. Koval, A.P., et al. 1998. Interaction *in vitro* of the product of the c-Crk-II proto-oncogene with the Insulin-like growth factor I receptor. *Biochem. J.* 330: 923-932.
4. Imaizumi, T., et al. 1999. Mutant mice lacking Crk-II caused by the gene trap insertional mutagenesis: Crk-II is not essential for embryonic development. *Biochem. Biophys. Res. Commun.* 266: 569-574.
5. SWISS-PROT/TrEMBL. (1169096) World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

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

SOURCE

Crk I/II (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 109-132 within an internal region of Crk I 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.

Blocking peptide available for competition studies, sc-393160 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

Crk I/II (D-6) is recommended for detection of Crk I and 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).

Crk I/II (D-6) is also recommended for detection of Crk I and Crk II in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Crk I/II siRNA (h): sc-43704, Crk I/II shRNA Plasmid (h): sc-43704-SH and Crk I/II shRNA (h) Lentiviral Particles: sc-43704-V.

Molecular Weight of Crk I: 23 kDa.

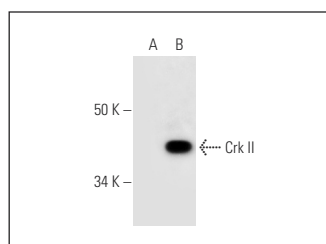
Molecular Weight of Crk II: 34 kDa.

Positive Controls: Crk II (h): 293 Lysate: sc-110474.

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 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.