SANTA CRUZ BIOTECHNOLOGY, INC.

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 pro-line-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. 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 IgG_1 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.

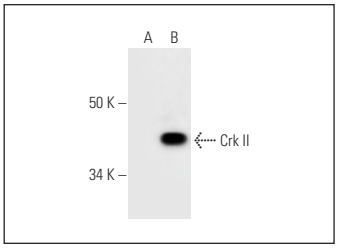
Molecular Weight of Crk II: 34 kDa.

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.