SANTA CRUZ BIOTECHNOLOGY, INC.

Crk I/II (S-20): sc-17989

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Crk family of adapter proteins, including Crk I, Crk II 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.

CHROMOSOMAL LOCATION

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

SOURCE

Crk I/II (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Crk I of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17989 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 (S-20) is recommended for detection of Crk I and Crk II of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 (S-20) is also recommended for detection of Crk I and Crk II in additional species, including equine, canine, bovine, porcine and avian.

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.

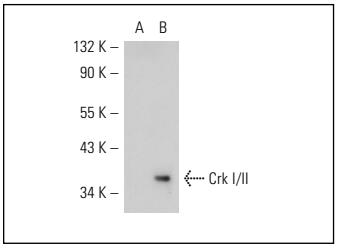
Molecular Weight of Crk II: 34 kDa.

Positive Controls: Crk II (h): 293 Lysate: sc-110474, Crk II (m): 293T Lysate: sc-125171 or HeLa whole cell lysate: sc-2200.

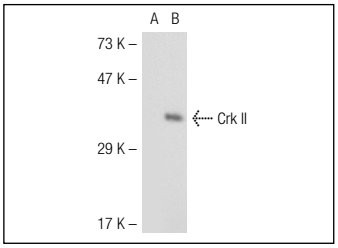
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Crk I/II (S-20): sc-17989. Western blot analysis of Crk I/II expression in non-transfected: sc-110760 (**A**) and human Crk I/II transfected: sc-110474 (**B**) 293 whole cell lysates.



Crk I/II (S-20): sc-17989. Western blot analysis of Crk II expression in non-transfected: sc-117752 (**A**) and mouse Crk II transfected: sc-125171 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Thomsen, A.R., et al. 2006. Estrogenic effect of soy isoflavones on mammary gland morphogenesis and gene expression profile. Toxicol. Sci. 93: 357-368.
2. Mortazavi, F., et al. 2011. c-Crk proto-oncogene contributes to transcriptional repression of p120-catenin in non-small cell lung cancer cells. Clin. Exp. Metastasis 28: 391-404.
3. Liu, S., et al. 2012. Expression of miR-126 and Crk in endometriosis: miR-126 may affect the progression of endometriosis by regulating Crk expression. Arch. Gynecol. Obstet. 285: 1065-1072.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.