

Crk II (H-53): sc-9004

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., et al. 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., et al. 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., et al. 1992. Biological and biochemical activity of v-Crk chimeras containing the SH2/SH3 regions of phosphatidylinositol-specific phospholipase C γ and Src. *J. Virol.* 66: 115-121.
5. Matsuda, M., et al. 1992. Two species of human Crk cDNA encode proteins with distinct biological activities. *Mol. Cell. Biol.* 12: 3482-3489.

CHROMOSOMAL LOCATION

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

SOURCE

Crk II (H-53) is a rabbit polyclonal antibody raised against amino acids 190-242 of Crk II of human origin.

PRODUCT

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

STORAGE

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

RESEARCH USE

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

APPLICATIONS

Crk II (H-53) is recommended for detection of Crk II of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

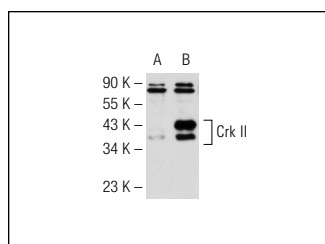
Crk II (H-53) is also recommended for detection of Crk II in additional species, including equine, canine, bovine and porcine.

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.

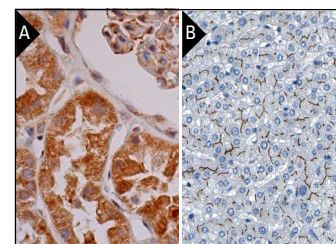
Molecular Weight of Crk II isoforms: 40/42 kDa.

Positive Controls: Crk II (h): 293T Lysate: sc-159757, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

DATA



Crk II (H-53): sc-9004. Western blot analysis of Crk II expression in non-transfected: sc-117752 (A) and human Crk II transfected: sc-159757 (B) 293T whole cell lysates.



Crk II (H-53): sc-9004. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and nuclear staining of cells in glomeruli and cells in tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing membrane staining of hepatocytes and bile duct cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Miller, C.T., et al. 2003. Increased c-Crk proto-oncogene expression is associated with an aggressive phenotype in lung adenocarcinomas. *Oncogene* 22: 6006-6013.
2. Nieto-Pelegrin, E., et al. 2014. Crk adaptors negatively regulate actin polymerization in pedestals formed by enteropathogenic *Escherichia coli* (EPEC) by binding to Tir effector. *PLoS Pathog.* 10: e1004022.



Try **Crk II (B-4): sc-390132** or **Crk I/II (D-6): sc-393160**, our highly recommended monoclonal alternatives to Crk II (H-53).