

CrkRS (N-16): sc-32643

BACKGROUND

CrkRS (Cdc2-related kinase, arginine/serine-rich, also designated CRK7 and CRKR) is a ubiquitous protein that appears to localize to the nucleus and link transcription and splicing machinery. CrkRS belongs to the serine/threonine protein kinase family and Cdc2/Cdkx subfamily. CrkRS has extensive proline-rich regions that resemble SH3 and WW domain binding sites and an RS domain that is characteristic of splicing factors. The protein kinase domain of CrkRS is 89% identical to the 46 kDa CHED protein kinase, also designated CDC2L5 and cell division cycle 2-like 5 (cholinesterase-related cell division controller); however, outside the kinase domains the two proteins are unique. Cell cycle control kinases can phosphorylate proteins important for differentiation and apoptosis and provide connections between proliferation, differentiation, apoptosis and neurocytoskeleton dynamics.

REFERENCES

- Lapidot-Lifson, Y., et al. 1992. Cloning and antisense oligodeoxynucleotide inhibition of a human homolog of Cdc2 required in hematopoiesis. *Proc. Natl. Acad. Sci. USA* 89: 579-583.
- Meyerson, M., et al. 1992. A family of human Cdc2-related protein kinases. *EMBO J.* 11: 2909-2917.
- Eshler, M., et al. 1993. Novel Cdc2-related protein kinases produced in murine hematopoietic stem cells. *Gene* 124: 305-306.
- Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 5: 355-364.
- Marques, F., et al. 2000. A new subfamily of high molecular mass Cdc2-related kinases with PITAI/VRE motifs. *Biochem. Biophys. Res. Commun.* 279: 832-837.
- Ko, T.K., et al. 2001. CrkRS: a novel conserved Cdc2-related protein kinase that co-localises with SC35 speckles. *J. Cell Sci.* 114: 2591-2603.
- Yee, K.W., et al. 2003. NKIAMRE, a novel conserved Cdc2-related kinase with features of both mitogen-activated protein kinases and cyclin-dependent kinases. *Biochem. Biophys. Res. Commun.* 308: 784-792.
- Beausoleil, S.A., et al. 2004. Large-scale characterization of HeLa cell nuclear phosphoproteins. *Proc. Natl. Acad. Sci. USA* 101: 12130-12135.

CHROMOSOMAL LOCATION

Genetic locus: CRK7 (human) mapping to 17q12; (mouse) mapping to 11 D.

SOURCE

CrkRS (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CrkRS 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-32643 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CrkRS (N-16) is recommended for detection of CrkRS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CrkRS siRNA (h): sc-44343, CrkRS siRNA (m): sc-44531, CrkRS shRNA Plasmid (h): sc-44343-SH, CrkRS shRNA Plasmid (m): sc-44531-SH, CrkRS shRNA (h) Lentiviral Particles: sc-44343-V and CrkRS shRNA (m) Lentiviral Particles: sc-44531-V.

Molecular Weight of CrkRS: 180 kDa.

Positive Controls: 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) 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.

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.

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **CrkRS (R-12): sc-81834**, our highly recommended monoclonal alternative to CrkRS (N-16).