

CRIK (6): sc-136283

BACKGROUND

Rho, the Ras-related small GTPase, is responsible for the regulation of Actin-based cytoskeletal structures including stress fibers, focal adhesions, and the contractile ring apparatus. CRIK (Citron Rho-interacting kinase), also known as CIT, citron or STK21, is a 2,027 amino acid cytoplasmic protein that belongs to the protein kinase superfamily and the AGC Ser/Thr protein kinase family. Containing an AGC-kinase C-terminal domain, a CNH domain, a PH domain, a phorbol ester/DAG-type zinc finger and a protein kinase domain, CRIK is suggested to play a role in the regulation of cytokinesis and the development of the central nervous system. CRIK is required for KIF14 localization to the central spindle and midbody. CRIK exists as four alternatively spliced isoforms and is encoded by a gene located on chromosome 12q24.23.

REFERENCES

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2. Di Cunto, F., et al. 1998. Citron Rho-interacting kinase, a novel tissue-specific Ser/Thr kinase encompassing the Rho-Rac-binding protein Citron. *J. Biol. Chem.* 273: 29706-29711.
3. Lyons-Warren, A., et al. 2005. Evidence of association between bipolar disorder and Citron on chromosome 12q24. *Mol. Psychiatry* 10: 807-809.
4. Gruneberg, U., et al. 2006. KIF14 and citron kinase act together to promote efficient cytokinesis. *J. Cell Biol.* 172: 363-372.
5. Kamijo, K., et al. 2006. Dissecting the role of Rho-mediated signaling in contractile ring formation. *Mol. Biol. Cell* 17: 43-55.
6. Berto, G., et al. 2007. The Down syndrome critical region protein TTC3 inhibits neuronal differentiation via RhoA and Citron kinase. *J. Cell Sci.* 120: 1859-1867.
7. Tan, I., et al. 2011. Chelerythrine perturbs lamellar actomyosin filaments by selective inhibition of myotonic dystrophy kinase-related Cdc42-binding kinase. *FEBS Lett.* 585: 1260-1268.

CHROMOSOMAL LOCATION

Genetic locus: CIT (human) mapping to 12q24.23; Cit (mouse) mapping to 5 F.

SOURCE

CRIK (6) is a mouse monoclonal antibody raised against amino acids 1420-1612 of CRIK of rat origin.

PRODUCT

Each vial contains 50 μ g IgG₁ in 0.5 ml 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.

APPLICATIONS

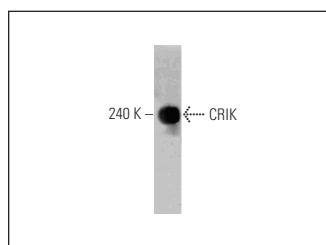
CRIK (6) is recommended for detection of CRIK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for CRIK siRNA (h): sc-39214, CRIK siRNA (m): sc-39215, CRIK shRNA Plasmid (h): sc-39214-SH, CRIK shRNA Plasmid (m): sc-39215-SH, CRIK shRNA (h) Lentiviral Particles: sc-39214-V and CRIK shRNA (m) Lentiviral Particles: sc-39215-V.

Molecular Weight of CRIK isoforms: 231/54/177/237 kDa.

Positive Controls: PC-12 cell lysate: sc-2250.

DATA



CRIK (6): sc-136283. Western blot analysis of CRIK expression in PC-12 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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