SANTA CRUZ BIOTECHNOLOGY, INC.

CRIK (H-13): sc-11628

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. The Citron Rho-interacting kinase (CRIK) is a serine/threonine kinase that belongs to the myotonic dystrophy kinase family and is a known effector of Rho. CRIK can be alternatively spliced to produce two isoforms, CRIK and CRIK-short kinase (SK). CRIK is a 240 kDa protein that contains the kinase domain which is followed by the Citron sequence, and CRIK-SK is a 54 kDa protein that consists mostly of the kinase domain. Both isoforms are capable of phosphorylating exogenous substrates as well as autophosphorylation. The CRIK kinase domain is related to the Rho-associated kinase (ROK), which is a target for Rho and induces the formation of focal adhesions and stress fibers. CRIK is thought to regulate cytokinesis as it localizes to the cleavage furrow and midbody of HeLa cells during the contractile process.

REFERENCES

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3. Leung, T., et al. 1996. The p160 RhoA-binding kinase ROK α is a member of a kinase family and is involved in the reorganization of the cytoskeleton. Mol. Cell Biol. 16: 5313-5327.
4. 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.
5. Madaule, P., et al. 1998. Role of citron kinase as a target of the small GTPase Rho in cytokinesis. Nature. 394: 491-494.
6. Itoh, K., et al. 1999. An essential part for Rho-associated kinase in the transcellular invasion of tumor cells. Nat. Med. 5: 221-225.
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CHROMOSOMAL LOCATION

Genetic locus: Cit (mouse) mapping to 5 F.

SOURCE

CRIK (H-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CRIK of mouse 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-11628 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CRIK (H-13) is recommended for detection of CRIK of mouse 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 CRIK siRNA (m): sc-39215, CRIK shRNA Plasmid (m): sc-39215-SH and CRIK shRNA (m) Lentiviral Particles: sc-39215-V.

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

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.