SANTA CRUZ BIOTECHNOLOGY, INC.

p-RKIP (77.Ser 153): sc-135778

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The Power to Question

BACKGROUND

Raf kinase inhibitory protein (RKIP, PEBP) is a modulator of the Raf/MAPK signaling cascade and a suppressor of metastatic cancer. RKIP inhibits MAPK by preventing association of Raf-1 and p21-activated kinase (PAK), and blocking phosphorylation of the Raf-1 kinase domain by PAK and Src kinases. After G protein receptor stimulation, RKIP can dissociate Raf-1 and associate with GRK 2, thereby blocking GRK 2 activity. This switch is triggered by protein kinase C (PKC)-dependent phosphorylation of the RKIP on Serine 153. RKIP Serine 153 phosphorylation by PKC in response to phorbol ester or epidermal growth factor causes release of RKIP from Raf-1. RKIP antagonizes the signal transduction pathways that mediate the activation of NFκB in response to stimulation with TNFα or interleukin-1β.

REFERENCES

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4. Yeung, K.C., et al. 2001. Raf kinase inhibitor protein interacts with NFκB-inducing kinase and Tak1 and inhibits NFκB activation. Mol. Cell. Biol. 21: 7207-7217.
5. Corbit, K.C., et al. 2003. Activation of Raf-1 signaling by protein kinase C through a mechanism involving Raf kinase inhibitory protein. J. Biol. Chem. 278: 13061-13068.
6. Lorenz, K., et al. 2003. Protein kinase C switches the Raf kinase inhibitor from Raf-1 to GRK 2. Nature 426: 574-579.
7. Jazirehi, A.R., et al. 2004. Inhibition of the Raf-MEK-1/2-ERK 1/2 signaling pathway, Bcl-x_L downregulation, and chemosensitization of non-Hodgkin's lymphoma B cells by Rituximab. Cancer Res. 64: 7117-7126.
8. Keller, E.T., et al. 2005. The biology of a prostate cancer metastasis suppressor protein: Raf kinase inhibitor protein. J. Cell Biochem. 94: 273-278.
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CHROMOSOMAL LOCATION

Genetic locus: PEBP1 (human) mapping to 12q24.23.

SOURCE

p-RKIP (77.Ser 153) is a mouse monoclonal antibody raised against a short amino acid sequence containing Ser 153 phosphorylated RKIP of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-RKIP (77.Ser 153) is recommended for detection of Ser 153 phosphorylated RKIP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for RKIP siRNA (h): sc-36430, RKIP shRNA Plasmid (h): sc-36430-SH and RKIP shRNA (h) Lentiviral Particles: sc-36430-V.

Molecular Weight of p-RKIP: 23 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048.

STORAGE

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

PROTOCOLS

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