

p-RKIP (rSer 153): sc-32622

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 NF κ B in response to stimulation with TNF α or interleukin-1 β .

REFERENCES

1. Yeung, K., et al. 1999. Suppression of Raf-1 kinase activity and MAP kinase signalling by RKIP. *Nature* 401: 173-177.
2. Yeung, K., et al. 2000. Mechanism of suppression of the Raf/MEK/extracellular signal-regulated kinase pathway by the Raf kinase inhibitor protein. *Mol. Cell. Biol.* 20: 3079-3085.
3. Serre, L., et al. 2001. Crystal structures of YBHB and YBCL from *Escherichia coli*, two bacterial homologues to a Raf kinase inhibitor protein. *J. Mol. Biol.* 310: 617-634.
4. Yeung, K.C., et al. 2001. Raf kinase inhibitor protein interacts with NF κ B-inducing kinase and Tak1 and inhibits NF κ B 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.

CHROMOSOMAL LOCATION

Genetic locus: *Pebp1* (rat) mapping to 12q16.

SOURCE

p-RKIP (rSer 153) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 153 phosphorylated RKIP of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-32622 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

p-RKIP (rSer 153) is recommended for detection of Ser 153 phosphorylated RKIP of rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

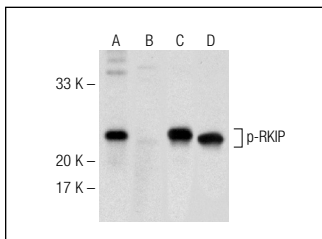
Molecular Weight of p-RKIP: 23 kDa.

Positive Controls: rat liver extract: sc-2395, rat brain extract: sc-2392.

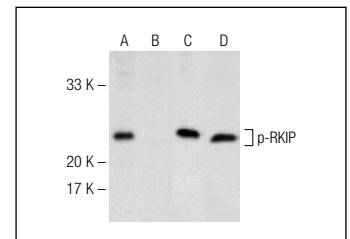
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Western blot analysis of RKIP phosphorylation in untreated (A,C) and lambda protein phosphatase (sc-200312A) treated (B,D) rat adrenal tissue extracts. Antibodies tested include p-RKIP (rSer 153): sc-32622 (A,B) and RKIP (FL-187): sc-28837 (C,D).



Western blot analysis of RKIP phosphorylation in untreated (A,C) and lambda protein phosphatase (sc-200312A) treated (B,D) rat liver tissue extracts. Antibodies tested include p-RKIP (rSer 153): sc-32622 (A,B) and RKIP (FL-187): sc-28837 (C,D).

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.

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Try **p-RKIP (80.Ser 153): sc-135779**, our highly recommended monoclonal alternative to p-RKIP (rSer 153).