

RKIP (D-5): sc-365973

BACKGROUND

Raf kinase inhibitor protein (RKIP) is a cytosolic protein that was initially characterized as a phosphatidylethanolamine-binding protein (PBP) expressed in brain tissue and secreted from testis fluid. In addition, RKIP was identified by yeast two-hybrid screening of human T cell libraries directed at identifying proteins that associate with the BXB kinase domain of the serine/threonine kinase, Raf-1. Subsequent *in vitro* and *in vivo* studies indicate that RKIP binds to both the active and inactive forms of Raf-1 and thereby regulates the signaling cascade of the MAP kinase pathway. The specific association of RKIP with kinase-active Raf-1 competitively inhibits the binding and activation of the Raf-1 substrate MEK. RKIP, in turn, affects downstream MAP kinase signaling by decreasing the activation of MEK effector proteins, including ERK 1 and ERK 2, and the subsequent induction of AP-1 mediated transcription.

CHROMOSOMAL LOCATION

Genetic locus: PEBP1 (human) mapping to 12q24.23; Pbp (mouse) mapping to 5 F.

SOURCE

RKIP (D-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 143-174 near the C-terminus of RKIP of rat origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365973 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

RKIP (D-5) is recommended for detection of RKIP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 RKIP siRNA (h): sc-36430, RKIP siRNA (m): sc-36431, RKIP shRNA Plasmid (h): sc-36430-SH, RKIP shRNA Plasmid (m): sc-36431-SH, RKIP shRNA (h) Lentiviral Particles: sc-36430-V and RKIP shRNA (m) Lentiviral Particles: sc-36431-V.

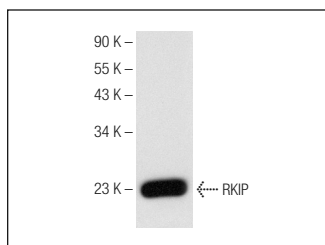
Molecular Weight of RKIP: 23 kDa.

Positive Controls: rat liver extract: sc-2395, rat brain extract: sc-2392 or HL-60 whole cell lysate: sc-2209.

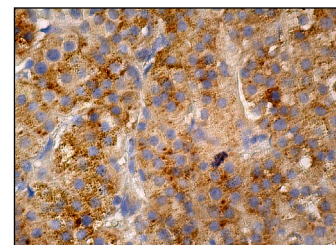
RECOMMENDED SUPPORT REAGENTS

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, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



RKIP (D-5): sc-365973. Western blot analysis of RKIP expression in rat brain tissue extract.



RKIP (D-5): sc-365973. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- He, Q.Y., et al. 2015. Reduction of RKIP expression promotes nasopharyngeal carcinoma invasion and metastasis by activating Stat3 signaling. *Oncotarget* 6: 16422-16436.
- Rodriguez, J.A., et al. 2015. Diminished expression of corticotropin-releasing hormone receptor 2 in human colon cancer promotes tumor growth and epithelial-to-mesenchymal transition via persistent interleukin-6/Stat3 signaling. *Cell. Mol. Gastroenterol. Hepatol.* 1: 610-630.
- Rodriguez, J.A., et al. 2015. Diminished expression of CRHR2 in human colon cancer promotes tumor growth and EMT via persistent IL-6/Stat3 signaling. *Cell. Mol. Gastroenterol. Hepatol.* 1: 610-630.

RESEARCH USE

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

PROTOCOLS

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