

κB-Ras1 (C-17): sc-10525

BACKGROUND

Small guanosine triphosphatases, typified by the mammalian Ras proteins, play major roles in the regulation of numerous cellular pathways. IκB-interacting Ras-like proteins, κB-Ras1 and κB-Ras2, belong to a subclass of evolutionarily conserved Ras-like proteins that differ from other Ras proteins in containing amino acids at positions 12 and 61 that are similar to those present in the oncogenic forms of Ras. These Ras-like proteins, κB-Ras1 and κB-Ras2, interact with the PEST domains of IκBα and IκBβ and decrease their rate of degradation. κB-Ras2 shows 71% identity to κB-Ras1. In cells, κB-Ras proteins are associated only with NFκB:IκBβ complexes and therefore may provide an explanation for the slower rate of degradation of IκBβ compared with IκBα.

REFERENCES

1. Bos, J.L. 1989. Ras oncogenes in human cancer: a review. *Cancer Res.* 49: 4682-4689.
2. McCormick, F. 1994. Activators and effectors of Ras p21 proteins. *Curr. Opin. Genet. Dev.* 4: 71-76.
3. May, M.J. and Ghosh, S. 1998. Signal transduction through NFκB. *Immunol. Today* 19: 80-88.
4. Bos, J.L. 1998. All in the family? New insights and questions regarding interconnectivity of Ras, Rap1 and Ral. *EMBO J.* 17: 6776-6782.
5. Bos, J.L. 1998. The Ras gene family and human carcinogenesis. *Mutat. Res.* 195: 255-271.
6. Fenwick, C., Na, S.Y., Voll, R.E., Zhong, H., Im, S.Y., Lee, J.W. and Ghosh, S. 2000. A subclass of Ras proteins that regulate the degradation of IκBβ. *Science* 287: 869-873.

CHROMOSOMAL LOCATION

Genetic locus: NKIRAS1 (human) mapping to 3p24.2; Nkiras1 (mouse) mapping to 14 A2.

SOURCE

κB-Ras1 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of κB-Ras1 of human 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-10525 P, (100 μg 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.

RESEARCH USE

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

APPLICATIONS

κB-Ras1 (C-17) is recommended for detection of κB-Ras1 of mouse, rat and human 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).

κB-Ras1 (C-17) is also recommended for detection of κB-Ras1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for κB-Ras1 siRNA (h): sc-41796, κB-Ras1 siRNA (m): sc-41797, κB-Ras1 shRNA Plasmid (h): sc-41796-SH, κB-Ras1 shRNA Plasmid (m): sc-41797-SH, κB-Ras1 shRNA (h) Lentiviral Particles: sc-41796-V and κB-Ras1 shRNA (m) Lentiviral Particles: sc-41797-V.

Molecular Weight of κB-Ras1: 22 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, U-87 MG cell lysate: sc-2411 or rat brain extract: sc-2392.

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.

PROTOCOLS

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