

κB-Ras1 (C-7): sc-398511

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

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2. Bos, J.L. 1989. Ras oncogenes in human cancer: a review. *Cancer Res.* 49: 4682-4689.
3. McCormick, F. 1994. Activators and effectors of Ras p21 proteins. *Curr. Opin. Genet. Dev.* 4: 71-76.
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. May, M.J. and Ghosh, S. 1998. Signal transduction through NFκB. *Immunol. Today* 19: 80-88.
6. Fenwick, C., et al. 2000. A subclass of Ras proteins that regulate the degradation of IκB. *Science* 287: 869-873.
7. Chen, Y., et al. 2003. κB-Ras binds to the unique insert within the Ankyrin repeat domain of IκBβ and regulates cytoplasmic retention of IκBβ-NFκB complexes. *J. Biol. Chem.* 278: 23101-23106.
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CHROMOSOMAL LOCATION

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

SOURCE

κB-Ras1 (C-7) is a mouse monoclonal antibody raised against amino acids 10-192 mapping at the C-terminus of κB-Ras1 of human 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.

STORAGE

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

APPLICATIONS

κB-Ras1 (C-7) is recommended for detection of κB-Ras1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

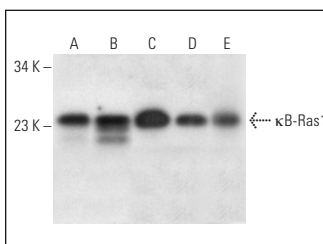
Molecular Weight of κB-Ras1: 22 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-87 MG whole cell lysate: sc-2411 or HeLa whole cell lysate: sc-2200.

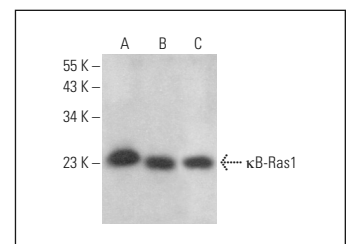
RECOMMENDED SUPPORT REAGENTS

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.

DATA



κB-Ras1 (C-7): sc-398511. Western blot analysis of κB-Ras1 expression in HeLa (A), IMR-32 (B), U-87 MG (C), Jurkat (D) and 293 (E) whole cell lysates.



κB-Ras1 (C-7): sc-398511. Western blot analysis of κB-Ras1 expression in HeLa (A), ARPE-19 (B) and 3T3-L1 (C) whole cell lysates.

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.