

# κB-Ras2 (C-11): sc-374312

## 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 IκB-α and IκB-β and decrease their rate of degradation. κB-Ras2 shows 71% identity to κB-Ras1. In cells, κB-Ras proteins are associated only with NFκB:IκB-β complexes and therefore may provide an explanation for the slower rate of degradation of IκB-β compared with IκB-α.

## REFERENCES

1. Bos, J.L. 1988. The Ras gene family and human carcinogenesis. *Mutat. Res.* 195: 255-271.
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. May, M.J. and Ghosh, S. 1998. Signal transduction through NFκB. *Immunol. Today* 19: 80-88.
5. Bos, J.L. 1998. All in the family? New insights and questions regarding interconnectivity of Ras, Rap1 and Ral. *EMBO J.* 17: 6776-6782.
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 IκB. *Science* 287: 869-873.

## CHROMOSOMAL LOCATION

Genetic locus: NKIRAS2 (human) mapping to 17q21.2; Nkiras2 (mouse) mapping to 11 D.

## SOURCE

κB-Ras2 (C-11) is a mouse monoclonal antibody raised against amino acids 150-191 mapping at the C-terminus of κB-Ras2 of human origin.

## PRODUCT

Each vial contains 200 μg IgG<sub>1</sub> 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

κB-Ras2 (C-11) is recommended for detection of κB-Ras2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

κB-Ras2 (C-11) is also recommended for detection of κB-Ras2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for κB-Ras2 siRNA (h): sc-41798, κB-Ras2 siRNA (m): sc-41799, κB-Ras2 shRNA Plasmid (h): sc-41798-SH, κB-Ras2 shRNA Plasmid (m): sc-41799-SH, κB-Ras2 shRNA (h) Lentiviral Particles: sc-41798-V and κB-Ras2 shRNA (m) Lentiviral Particles: sc-41799-V.

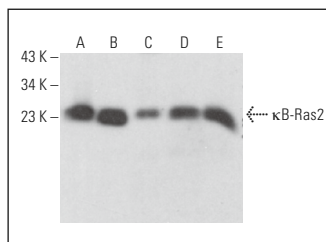
Molecular Weight of κB-Ras2: 22 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, CCRF-CEM cell lysate: sc-2225 or RAW 264.7 whole cell lysate: sc-2211.

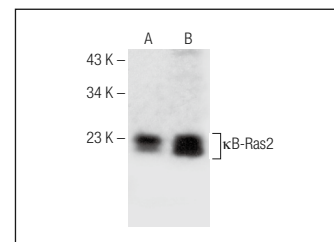
## RECOMMENDED SUPPORT REAGENTS

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-Ras2 (C-11): sc-374312. Western blot analysis of κB-Ras2 expression in HeLa (A), CCRF-CEM (B), EOC 20 (C), 3T3-L1 (D) and C6 (E) whole cell lysates.



κB-Ras2 (C-11): sc-374312. Western blot analysis of κB-Ras2 expression in HeLa (A) and RAW 264.7 (B) whole cell lysates.

## RESEARCH USE

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