

κB-Ras1 (184C278): sc-52915

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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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 IκB. *Science* 287: 869-873.
7. Chen, Y., Wu, J. and Ghosh, G. 2003. κB-Ras binds to the unique insert within the ankyrin repeat domain of IκBβ and regulates cytoplasmic retention of IκBβ x NFκB complexes. *J. Biol. Chem.* 278: 23101-23106.
8. Chen, Y., Vallee, S., Wu, J., Vu, D., Sondek, J. and Ghosh, G. 2004. Inhibition of NFκB activity by IκBβ in association with κB-Ras. *Mol. Cell. Biol.* 24: 3048-3056.

CHROMOSOMAL LOCATION

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

SOURCE

κB-Ras1 (184C278) is a mouse monoclonal antibody raised against amino acids 96-113 of κB-Ras1 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

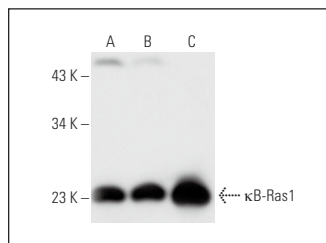
κB-Ras1 (184C278) is recommended for detection of κB-Ras1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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.

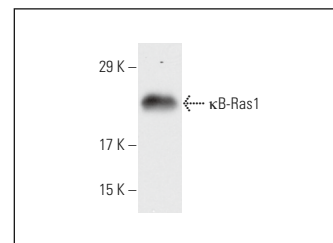
Molecular Weight of κB-Ras1: 22 kDa.

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

DATA



κB-Ras1 (184C278): sc-52915. Western blot analysis of κB-Ras1 expression in IMR-32 (A) and U-87 MG (B) whole cell lysates and rat brain tissue extract (C).



κB-Ras1 (184C278): sc-52915. Western blot analysis of κB-Ras1 expression in HeLa whole cell lysate.

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 for detailed protocols and support products.