

Rheb (m): 293T Lysate: sc-123114

BACKGROUND

H-, K- and N-Ras represent the prototype members of a family of small G proteins which are frequently activated to an oncogenic state in a wide variety of human tumors. Activation is due to point mutations at position 12 or 61 within their coding sequence. Such mutations cause these proteins to be constitutively converted to their active GTP-bound, rather than the inactive GDP-bound, state. The related human R-Ras gene was initially cloned by low stringency hybridization methods. Position 38 or 87 (analogous to positions 12 and 61 in H-Ras) mutants of R-Ras have been shown to be capable of activating oncogenic function. Ras p21 in its active GTP binding state binds to Raf-1, resulting in activation of the MAP kinase signaling cascade. An additional member of the Ras family, Rheb, also interacts with Raf-1. This interaction is potentiated by growth factors and agents that increase cAMP levels.

REFERENCES

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3. Lowe, D.G., Capon, D.J., Delwart, E., Sakaguchi, A.Y., Naylor, S.L. and Goeddel, D.V. 1987. Structure of the human and murine R-Ras genes, genes closely related to Ras proto-oncogenes. *Cell* 48: 137-146.
4. Bos, J.L. 1989. Ras oncogenes in human cancer: a review. *Cancer Res.* 49: 4682-4689.
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7. Dent, P., Reardon, D.B., Morrison, D.K. and Sturgill, T.W. 1995. Regulation of Raf-1 and Raf-1 mutants by Ras-dependent and Ras-independent mechanisms *in vitro*. *Mol. Cell. Biol.* 15: 4125-4135.
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CHROMOSOMAL LOCATION

Genetic locus: Rheb (mouse) mapping to 5 A3.

PRODUCT

Rheb (m): 293T Lysate represents a lysate of mouse Rheb transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Rheb (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Rheb antibodies. Recommended use: 10-20 µl per lane.

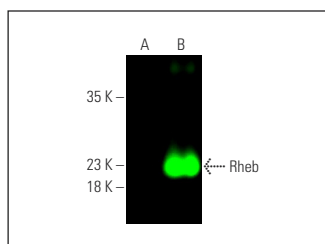
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Rheb (B-12): sc-271509 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Rheb expression in Rheb transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

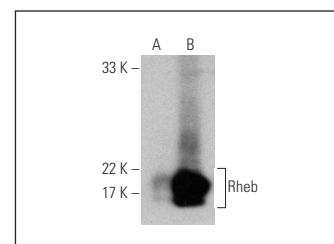
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Rheb (B-12): sc-271509. Near-infrared western blot analysis of Rheb expression in non-transfected: sc-117752 (A) and mouse Rheb transfected: sc-123114 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



Rheb (B-12) HRP: sc-271509 HRP. Direct western blot analysis of Rheb expression in non-transfected: sc-117752 (A) and mouse Rheb transfected: sc-123114 (B) 293T 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.