

Rheb (C-19): sc-6341

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.

CHROMOSOMAL LOCATION

Genetic locus: RHEB (human) mapping to 7q36.1; Rheb (mouse) mapping to 5 A3.

SOURCE

Rheb (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Rheb of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6341 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rheb (C-19) is recommended for detection of Rheb of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Rheb (C-19) is also recommended for detection of Rheb in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rheb siRNA (h): sc-41859, Rheb siRNA (m): sc-41860, Rheb shRNA Plasmid (h): sc-41859-SH, Rheb shRNA Plasmid (m): sc-41860-SH, Rheb shRNA (h) Lentiviral Particles: sc-41859-V and Rheb shRNA (m) Lentiviral Particles: sc-41860-V.

Molecular Weight of Rheb: 21 kDa.

Positive Controls: Rheb (m): 293T Lysate: sc-123114, SK-N-SH cell lysate: sc-2410 or SH-SY5Y cell lysate: sc-3812.

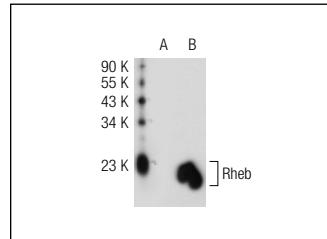
STORAGE

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

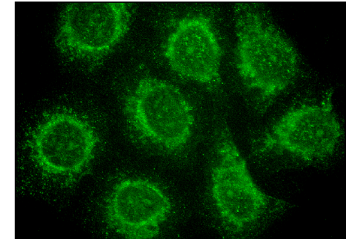
RESEARCH USE

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

DATA



Rheb (C-19): sc-6341. Western blot analysis of Rheb expression in non-transfected: sc-117752 (A) and mouse Rheb transfected: sc-123114 (B) 293T whole cell lysates.



Rheb (C-19): sc-6341. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

SELECT PRODUCT CITATIONS

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- Kobayashi, T., et al. 2010. Regulation of androgen receptor transactivity and mTOR-S6 kinase pathway by Rheb in prostate cancer cell proliferation. *Prostate* 70: 866-874.
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