

REPS2 (D-18): sc-50175

BACKGROUND

REPS2, a cytoplasmic protein, is primarily expressed in cerebellum, lung, testis, cerebrum and kidney. REPS2 forms a complex with DDEF1 and then binds to paxillin. It can also form a complex with activated RAL, which interacts with the Rho subfamily member Cdc42, and with Ral BP-1, which is involved in growth factor signaling via its influence on the Ral signaling pathway. The NF κ B subunit p65 interacts with the EH domain of REPS2, and an upregulation of NF κ B activity correlates with a downregulation of REPS2 activity. Decreased expression of REPS2 during progression cancer cells may lead to loss of control of growth factor signalling and, thus, loss of control of cell proliferation. REPS2 may also be an important factor in cancer cell resistance to apoptosis.

REFERENCES

- Ikeda, M., Ishida, O., Hinoi, T., Kishida, S. and Kikuchi, A. 1998. Identification and characterization of a novel protein interacting with Ral-binding protein 1, a putative effector protein of Ral. *J. Biol. Chem.* 273: 814-821.
- Oshiro, T., Koyama, S., Sugiyama, S., Kondo, A., Onodera, Y., Asahara, T., Sabe, H. and Kikuchi, A. 2002. Interaction of POB1, a downstream molecule of small G protein Ral, with PAG2, a paxillin-binding protein, is involved in cell migration. *J. Biol. Chem.* 277: 38618-38626.
- Oosterhoff, J.K., Penninkhof, F., Brinkmann, A.O., Anton Grootegoed, J. and Blok, L.J. 2003. REPS2/POB1 is downregulated during human prostate cancer progression and inhibits growth factor signalling in prostate cancer cells. *Oncogene* 22: 2920-2925.
- Huang, K.M., Geunes-Boyer, S., Wu, S., Dutra, A., Favor, J. and Stambolian, D. 2004. Organization and annotation of the Xcat critical region: elimination of seven positional candidate genes. *Genomics* 83: 893-901.
- Penninkhof, F., Grootegoed, J.A. and Blok, L.J. 2004. Identification of REPS2 as a putative modulator of NF κ B activity in prostate cancer cells. *Oncogene* 23: 5607-5615.
- Oosterhoff, J.K., Kuhne, L.C., Grootegoed, J.A. and Blok, L.J. 2005. EGF signalling in prostate cancer cell lines is inhibited by a high expression level of the endocytosis protein REPS2. *Int. J. Cancer* 113: 561-567.
- Sugiyama, S., Kishida, S., Chayama, K., Koyama, S. and Kikuchi, A. 2005. Ubiquitin-interacting motifs of Epsin are involved in the regulation of Insulin-dependent endocytosis. *J. Biochem.* 137: 355-364.
- Yadav, S., Zajac, E., Singhal, S.S., Singhal, J., Drake, K., Awasthi, Y.C. and Awasthi, S. 2005. POB1 overexpression inhibits RLIP76-mediated transport of glutathione-conjugates, drugs and promotes apoptosis. *Biochem. Biophys. Res. Commun.* 328: 1003-1009.

CHROMOSOMAL LOCATION

Genetic locus: REPS2 (human) mapping to Xp22.2; Repl2 (mouse) mapping to X F4.

RESEARCH USE

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

SOURCE

REPS2 (D-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of REPS2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50175 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

REPS2 (D-18) is recommended for detection of REPS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

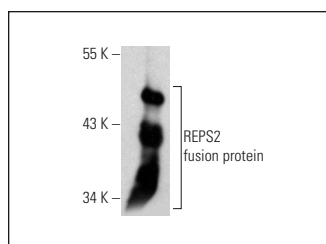
REPS2 (D-18) is also recommended for detection of REPS2 in additional species, including equine and canine.

Suitable for use as control antibody for REPS2 siRNA (h): sc-61454, REPS2 siRNA (m): sc-61455, REPS2 shRNA Plasmid (h): sc-61454-SH, REPS2 shRNA Plasmid (m): sc-61455-SH, REPS2 shRNA (h) Lentiviral Particles: sc-61454-V and REPS2 shRNA (m) Lentiviral Particles: sc-61455-V.

Molecular Weight of REPS2: 78 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, DU 145 cell lysate: sc-2268 or LNCaP cell lysate: sc-2231.

DATA



REPS2 (D-18): sc-50175. Western blot analysis of human recombinant REPS2 fusion protein.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **REPS2 (K-18): sc-100825**, our highly recommended monoclonal alternative to REPS2 (D-18).