

RERG (E-14): sc-109008

BACKGROUND

Members of the Ras superfamily of small GTP-binding proteins are critical mediators of diverse cell signaling pathways, including those leading to cell proliferation, cytoskeletal organization and secretion. RERG (Ras-like, estrogen-regulated, growth inhibitor) is a 199 amino acid protein that localizes to the cytoplasm and belongs to the Ras subfamily of small GTPases. Expressed in pancreas, liver, skin, lung, brain, kidney and heart tissue, RERG possesses intrinsic GTPase activity and is able to bind both GDP and GTP and, when over-expressed, may reduce overall tumorigenic potential. The gene encoding RERG maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612664. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Wang, A.G., et al. 2006. Expression of the RERG gene is gender-dependent in hepatocellular carcinoma and regulated by histone deacetyltransferases. *J. Korean Med. Sci.* 21: 891-896.
5. Key, M.D., et al. 2006. Characterization of RERG: an estrogen-regulated tumor suppressor gene. *Meth. Enzymol.* 407: 513-527.
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7. Hanker, A.B., et al. 2008. Tools to study the function of the Ras-related, estrogen-regulated growth inhibitor in breast cancer. *Meth. Enzymol.* 439: 53-72.

CHROMOSOMAL LOCATION

Genetic locus: RERG (human) mapping to 12p12.3; Rerg (mouse) mapping to 6 G1.

SOURCE

RERG (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RERG of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-109008 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RERG (E-14) is recommended for detection of RERG 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).

RERG (E-14) is also recommended for detection of RERG in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RERG siRNA (h): sc-96069, RERG siRNA (m): sc-152809, RERG shRNA Plasmid (h): sc-96069-SH, RERG shRNA Plasmid (m): sc-152809-SH, RERG shRNA (h) Lentiviral Particles: sc-96069-V and RERG shRNA (m) Lentiviral Particles: sc-152809-V.

Molecular Weight of RERG: 23 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.