

# ARHGEF37 (E-19): sc-246910

## BACKGROUND

Rho GTPases, which play fundamental roles in numerous cellular processes, are initiated by external stimuli that signal through a protein-coupled receptors. ARHGEF37 (Rho guanine nucleotide exchange factor (GEF) 37) is a 675 amino acid protein that contains one BAR domain, one DH (DBL-homology) domain and 2 SH3 domains. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken and zebrafish, ARHGEF37 is encoded by a gene that maps to human chromosome 5q32. Chromosome 5 makes up approximately 6% of the human genome and contains 181 million base pairs, which encode 1,000 genes. Chromosome 5 is associated with Cockayne syndrome, familial adenomatous polyposis and Treacher Collins syndrome. Deletion of 5q, or chromosome 5 altogether, is common in myelodysplastic syndrome and acute myelogenous leukemias.

## REFERENCES

- Dixon, M.J., Read, A.P., Donnai, D., Colley, A., Dixon, J. and Williamson, R. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
- Saltman, D.L., Dolganov, G.M., Warrington, J.A., Wasmuth, J.J. and Lovett, M. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
- Kadmon, M., Tandara, A. and Herfarth, C. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the Heidelberg Polyposis Register. *Int. J. Colorectal Dis.* 16: 63-75.
- Marklund, L., Melin, M., Melberg, A., Giedraitis, V. and Dahl, N. 2006. Adult-onset autosomal dominant leukodystrophy with autonomic symptoms restricted to 1.5 Mbp on chromosome 5q23. *Am. J. Med. Genet. B Neuropsychiatr. Genet.* 141B: 608-614.
- Aretz, S., Stienen, D., Friedrichs, N., Stemmler, S., Uhlhaas, S., Rahner, N., Propping, P. and Friedl, W. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). *Hum. Mutat.* 28: 985-992.
- Cleaver, J.E., Hefner, E., Laposi, R.R., Karentz, D. and Marti, T. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. *Neuroscience* 145: 1300-1308.
- Mullighan, C.G., Phillips, L.A., Su, X., Ma, J., Miller, C.B., Shurtleff, S.A. and Downing, J.R. 2008. Genomic analysis of the clonal origins of relapsed acute lymphoblastic leukemia. *Science* 322: 1377-1380.

## CHROMOSOMAL LOCATION

Genetic locus: ARHGEF37 (human) mapping to 5q32; Arhgef37 (mouse) mapping to 18 E1.

## SOURCE

ARHGEF37 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARHGEF37 of human origin.

## RESEARCH USE

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

## 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-246910 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ARHGEF37 (E-19) is recommended for detection of ARHGEF37 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).

ARHGEF37 (E-19) is also recommended for detection of ARHGEF37 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ARHGEF37 siRNA (h): sc-91898, ARHGEF37 siRNA (m): sc-140320, ARHGEF37 shRNA Plasmid (h): sc-91898-SH, ARHGEF37 shRNA Plasmid (m): sc-140320-SH, ARHGEF37 shRNA (h) Lentiviral Particles: sc-91898-V and ARHGEF37 shRNA (m) Lentiviral Particles: sc-140320-V.

Molecular Weight of ARHGEF37: 76 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.