SANTA CRUZ BIOTECHNOLOGY, INC.

ARHGEF37 (P-20): sc-246912

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Rho GTPases, which play fundamental roles in numerous cellular processes, are initiated by external stimuli that signal though G-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

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
3. Kadmon, M., et al. 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.
4. Marklund, L., et al. 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.
5. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
6. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.
7. Mullighan, C.G., et al. 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 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ARHGEF37 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-246912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARHGEF37 (P-20) 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 (P-20) 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.

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.