SGTB (S-15): sc-163364



The Power to Question

BACKGROUND

SGTB (small glutamine-rich tetratricopeptide repeat (TPR)-containing, β) is a 304 amino acid protein that belongs to the SGT family. Containing four TPR repeats, the SGTB protein acts as a co-chaperone that binds directly to HSC70 and HSP70 and regulates their ATPase activity. The SGTB gene is conserved in chimpanzee, dog, cow, mouse, rat, chicken, zebrafish, fruit fly, mosquito, S. pombe, S. cerevisiae, K. lactis, E. gossypii, M. grisea and N. crassa, and maps to human chromosome 5q12.3. 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 through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is caused by insertions or deletions within the TCOF1 gene and is also associated with chromosome 5. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

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.
- 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.
- 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.
- 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. Makrantonaki, E., et al. 2007. Molecular mechanisms of skin aging: state of the art. Ann. N.Y. Acad. Sci. 1119: 40-50.
- Herry, A., et al. 2007. Redefining monosomy 5 by molecular cytogenetics in 23 patients with MDS/AML. Eur. J. Haematol. 78: 457-467.
- 7. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
- 8. 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.
- 9. 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: SGTB (human) mapping to 5q12.3; Sgtb (mouse) mapping to 13 D1.

SOURCE

SGTB (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SGTB of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-163364 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SGTB (S-15) is recommended for detection of SGTB 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).

SGTB (S-15) is also recommended for detection of SGTB in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SGTB siRNA (h): sc-91744, SGTB siRNA (m): sc-153428, SGTB shRNA Plasmid (h): sc-91744-SH, SGTB shRNA Plasmid (m): sc-153428-SH, SGTB shRNA (h) Lentiviral Particles: sc-91744-V and SGTB shRNA (m) Lentiviral Particles: sc-153428-V.

Molecular Weight of SGTB: 33 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**