SANTA CRUZ BIOTECHNOLOGY, INC.

GATSL3 (A-6): sc-377114



BACKGROUND

GATSL3 (GATS-like protein 3) is a 329 amino acid protein that belongs to the GATS family. The gene encoding GATSL3 maps to human chromosome 22, which contains over 500 genes and about 49 million bases. Being the second smallest human chromosome, 22 contains a surprising variety of interesting genes. Phelan-McDermid syndrome, Neurofibromatosis type 2 and autism are associated with chromosome 22. A schizophrenia susceptibility locus has been identified on chromosome 22 and studies show that 22q11 deletion symptoms include a high incidence of schizophrenia. Translocations between chromosome 39 and 22 may lead to the formation of the Philadelphia chromosome and the subsequent production of the novel fusion protein, Bcr-Abl, a potent cell proliferation activator found in several types of leukemia.

REFERENCES

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- 2. Schwab, S.G. and Wildenauer, D.B. 1999. Chromosome 22 workshop report. Am. J. Med. Genet. 88: 276-278.
- Tsilchorozidou, T., et al. 2004. Constitutional rearrangements of chromosome 22 as a cause of neurofibromatosis 2. J. Med. Genet. 41: 529-534.
- 4. Arinami, T. 2006. Analyses of the associations between the genes of 22q11 deletion syndrome and schizophrenia. J. Hum. Genet. 51: 1037-1045.
- Paylor, R., et al. 2006. Tbx1 haploinsufficiency is linked to behavioral disorders in mice and humans: implications for 22q11 deletion syndrome. Proc. Natl. Acad. Sci. USA 103: 7729-7734.
- Zheng, X., et al. 2006. BCR and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. BMC Cancer 6: 262.
- Ahronowitz, I., et al. 2007. Mutational spectrum of the NF2 gene: a metaanalysis of 12 years of research and diagnostic laboratory findings. Hum. Mutat. 28: 1-12.

CHROMOSOMAL LOCATION

Genetic locus: GATSL3 (human) mapping to 22q12.2; Gatsl3 (mouse) mapping to 11 A1.

SOURCE

GATSL3 (A-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 127-155 within an internal region of GATSL3 of human origin.

PRODUCT

Each vial contains 200 μg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377114 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

GATSL3 (A-6) is recommended for detection of GATSL3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), istorting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GATSL3 siRNA (h): sc-75555, GATSL3 siRNA (m): sc-108738, GATSL3 shRNA Plasmid (h): sc-75555-SH, GATSL3 shRNA Plasmid (m): sc-108738-SH, GATSL3 shRNA (h) Lentiviral Particles: sc-75555-V and GATSL3 shRNA (m) Lentiviral Particles: sc-108738-V.

Molecular Weight of GATSL3: 36 kDa.

Positive Controls: human GATSL3 transfected HEK293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.







GATSL3 (A-6): sc-377114. Western blot analysis of GATSL3 expression in non-transfected (A) and human GATSL3 transfected (B) HEK293T whole cell lysates.

GATSL3 (A-6): sc-377114. Immunoperoxidase staining of formalin fixed, parafin-embedded human esophagus tissue showing nucleolar, nuclear and cytoplasmic staining of squamous epithelial cells.

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.