SANTA CRUZ BIOTECHNOLOGY, INC.

AZI1 (G-14): sc-163722

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

AZI1, also known as 5-azacytidine-induced protein 1, is a 1,083 amino acid protein that may play a role in spermatogenesis. AZI1 is most highly expressed in spinal cord, followed by testis, ovary, amygdala, cerebellum and thalamus. Low expression is present in other adult and fetal tissues and specific adult brain regions. AZI1 gene transcription begins in pachytene spermatocytes and expression of the gene is induced in cultivated fibroblasts on treatment with 5-azacytidine, which is known to lead to the demethylation of genomic DNA. The AZI1 gene is conserved in canine, bovine, mouse, rat, chicken, and zebrafish, and exists as two alternatively spliced isoforms. AZI1 contains one IQ domain, and the gene that encodes it maps to human chromosome 17q25.3. Chromosome 17 makes up over 2.5% of the human genome with about 81 million bases encoding over 1,200 genes. Alexander disease, Birt-Hogg-Dube syndrome and Canavan disease are also associated with chromosome 17.

REFERENCES

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2. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. USA 99: 16899-16903.
3. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. Nat. Genet. 36: 40-45.
4. Al-Dirbashi, O.Y., et al. 2007. Quantification of N-acetylaspartic acid in urine by LC-MS/MS for the diagnosis of Canavan disease. J. Inherit. Metab. Dis. 30: 612.
5. Murakami, N., et al. 2008. Novel deletion mutation in GFAP gene in an infantile form of Alexander disease. Pediatr. Neurol. 38: 50-52.
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CHROMOSOMAL LOCATION

Genetic locus: AZI1 (human) mapping to 17q25.3; Azi1 (mouse) mapping to 11 E2.

SOURCE

AZI1 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of AZI1 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-163722 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AZI1 (G-14) is recommended for detection of AZI1 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); non cross-reactive with AZI2.

AZI1 (G-14) is also recommended for detection of AZI1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AZI1 siRNA (h): sc-94024, AZI1 siRNA (m): sc-141422, AZI1 shRNA Plasmid (h): sc-94024-SH, AZI1 shRNA Plasmid (m): sc-141422-SH, AZI1 shRNA (h) Lentiviral Particles: sc-94024-V and AZI1 shRNA (m) Lentiviral Particles: sc-141422-V.

Molecular Weight of AZI1: 122 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.