SANTA CRUZ BIOTECHNOLOGY, INC.

AAT-1 (T-16): sc-99253

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The c-Myc proto-oncogene plays a significant role in cell proliferation, differentiation, transformation and apoptosis. A novel c-Myc binding protein, MYCBP (also designated AMY-1), binds to the transactivation domain of c-Myc and stimulates the activation of E-box-dependent transcription. MYCBP translocates from the cytoplasm to the nucleus during S phase when increased expression of c-Myc occurs. MYCBP and AAT-1 (AMY-1-associating protein expressed in testis 1) have been shown to associate with AKAP 149 and AKAP 84 in mitochondria of somatic cells and sperm, which suggests a role for MYCBP and AAT-1 in spermatogenesis. Expression of the AAT-1 gene is regulated by two different promoters, which result in various isoforms. One promoter generates expression of the AAT-1, AAT-1α, AAT-1β and AAT-1γ isoforms, which are specifically expressed in testis, while the other promoter generates AAT-1L, AAT-1M and AAT-1S, which are differentially expressed.

REFERENCES

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4. Yukitake, H., et al. 2002. AMAP-1, a novel testis-specific AMY-1-binding protein, is differentially expressed during the course of spermatogenesis. Biochim. Biophys. Acta 1577: 126-132.
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7. Furusawa, M., et al. 2003. Molecular cloning of the mouse AMY-1 gene and identification of the synergistic activation of the AMY-1 promoter by GATA-1 and Sp1. Genomics 81: 221-233.
8. Matsuda, E., et al. 2005. Structure and characterization of AAT-1 isoforms. Biol. Pharm. Bull. 28: 898-901.
9. Ishizaki, R., et al. 2006. AMY-1 (associate of Myc-1) localization to the *trans*-Golgi network through interacting with BIG2, a guanine-nucleotide exchange factor for ADP-ribosylation factors. Genes Cells 11: 949-959.

CHROMOSOMAL LOCATION

Genetic locus: C3orf15 (human) mapping to 3q13.33; 4932425I24Rik (mouse) mapping to 16 B3.

SOURCE

AAT-1 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AAT-1 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-99253 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AAT-1 (T-16) is recommended for detection of AAT-1 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 isoforms AAT1-α, AAT1-β or AAT1-γ.

AAT-1 (T-16) is also recommended for detection of AAT-1 in additional species, including equine and canine.

Suitable for use as control antibody for AAT-1 siRNA (h): sc-78031, AAT-1 siRNA (m): sc-140739, AAT-1 shRNA Plasmid (h): sc-78031-SH, AAT-1 shRNA Plasmid (m): sc-140739-SH, AAT-1 shRNA (h) Lentiviral Particles: sc-78031-V and AAT-1 shRNA (m) Lentiviral Particles: sc-140739-V.

Molecular Weight of AAT-1: 71 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.