SANTA CRUZ BIOTECHNOLOGY, INC.

ATAD2B (L-16): sc-107438

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The AAA ATPase family of molecular chaperones is characterized by a highly conserved AAA motif. Composed of 200-250 residues, the AAA domain contains Walker homology sequences and imparts ATPase activity. Members of the AAA ATPase family act as DNA helicases or transcription factors and are thought to be involved in several cellular functions, such as cell-cycle regulation, protein proteolysis, organelle biogenesis and vesicle-mediated protein transport. ATAD2B (ATPase family AAA domain-containing protein 2B) is a 1,458 amino acid protein that contains one bromo domain and exists as 2 alternatively spliced isoforms. The gene encoding ATAD2B maps to human chromosome 2p24.1 and mouse chromosome 12 A1.1.

REFERENCES

1. Patel, S. and Latterich, M. 1998. The AAA team: related ATPases with diverse functions. Trends Cell Biol. 8: 65-71.
2. Neuwald, A.F., Aravind, L., Spouge, J.L. and Koonin, E.V. 1999. AAA+: A class of chaperone-like ATPases associated with the assembly, operation, and disassembly of protein complexes. Genome Res. 9: 27-43.
3. Ogura, T. and Wilkinson, A.J. 2001. AAA+ superfamily ATPases: common structure-diverse function. Genes Cells 6: 575-597.
4. Ye, Y., Meyer, H.H. and Rapoport, T.A. 2001. The AAA ATPase Cdc48/p97 and its partners transport proteins from the ER into the cytosol. Nature 414: 652-656.
5. Iyer, L.M., Leipe, D.D., Koonin, E.V. and Aravind, L. 2004. Evolutionary history and higher order classification of AAA+ ATPases. J. Struct. Biol. 146: 11-31.
6. Kedzierska, S. 2006. Structure, function and mechanisms of action of ATPases from the AAA superfamily of proteins. Postepy Biochem. 52: 330-338.
7. Gauci, S., Helbig, A.O., Slijper, M., Krijgsveld, J., Heck, A.J. and Mohammed, S. 2009. Lys-N and Trypsin cover complementary parts of the phosphoproteome in a refined SCX-based approach. Anal. Chem. 81: 4493-4501.

CHROMOSOMAL LOCATION

Genetic locus: ATAD2B (human) mapping to 2p24.1; Atad2b (mouse) mapping to 12 A1.1.

SOURCE

ATAD2B (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ATAD2B of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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-107438 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATAD2B (L-16) is recommended for detection of ATAD2B 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), immunohistochemistry (including paraffin-embedded sections) (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 other ATAD family members.

ATAD2B (L-16) is also recommended for detection of ATAD2B in additional species, including equine, canine, bovine and porcine.

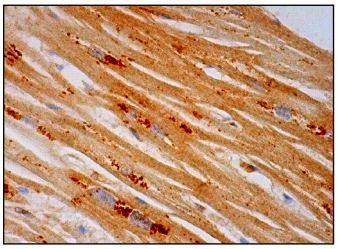
Suitable for use as control antibody for ATAD2B siRNA (h): sc-94415, ATAD2B siRNA (m): sc-141316, ATAD2B shRNA Plasmid (h): sc-94415-SH, ATAD2B shRNA Plasmid (m): sc-141316-SH, ATAD2B shRNA (h) Lentiviral Particles: sc-94415-V and ATAD2B shRNA (m) Lentiviral Particles: sc-141316-V.

Molecular Weight of ATAD2B: 165 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ATAD2B (L-16): sc-107438. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of glandular cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.