

ATAD3A/B/C (H-228): sc-292156

BACKGROUND

The AAA ATPase family of molecular chaperones are 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 as well as 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. Mitochondrial membrane proteins ATAD3A and ATAD3B contribute to the stabilization of nucleoids which are large mitochondrial DNA (mtDNA)-protein complexes. ATAD3A/B may participate in the transformation pathway and the chemosensitivity of oligodendrogliomas. The genes encoding ATAD3A/B/C maps to human chromosome 1, which houses over 3,000 genes and is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

CHROMOSOMAL LOCATION

Genetic locus: ATAD3A/ATAD3B/ATAD3C (human) mapping to 1p36.33; Atad3a (mouse) mapping to 4 E2.

SOURCE

ATAD3A/B/C (H-228) is a rabbit polyclonal antibody raised against amino acids 407-634 mapping at the C-terminus of ATAD3A 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.

STORAGE

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

APPLICATIONS

ATAD3A/B/C (H-228) is recommended for detection of ATAD3A, ATAD3B and ATAD3C of human origin and ATAD3A of mouse and rat origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ATAD family members.

Suitable for use as control antibody for ATAD3A siRNA (m): sc-105102, ATAD3A shRNA Plasmid (m): sc-105102-SH and ATAD3A shRNA (m) Lentiviral Particles: sc-105102-V.

Molecular Weight of ATAD3A: 71 kDa.

Molecular Weight of ATAD3B: 73 kDa.

Molecular Weight of ATAD3C: 46 kDa.

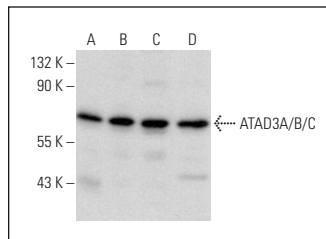
Molecular Weight of ATAD3A mouse isoforms: 67/57 kDa.

Positive Controls: A549 cell lysate: sc-2413, WiDR cell lysate: sc-24779 or JAR cell lysate: sc-2276.

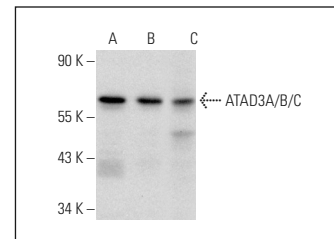
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ATAD3A/B/C (H-228): sc-292156. Western blot analysis of ATAD3A/B/C expression in A549 (A), HeLa (B) and Daudi (C) whole cell lysates and human liver tissue extract (D).



ATAD3A/B/C (H-228): sc-292156. Western blot analysis of ATAD3A/B/C expression in WiDR (A) and JAR (B) whole cell lysates and mouse kidney tissue extract (C).

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.



Try **ATAD3A/B/C (A-4): sc-376185**, our highly recommended monoclonal alternative to ATAD3A/B/C (H-228).