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ATAD3B Antibody
Catalog # ASC11341

Specification

ATAD3B Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q5T9A4
Other Accession	NP_114127, 75677353
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**ATAD3B antibody can be used for detection of ATAD3B by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL.**

ATAD3B Antibody - Additional Information

Gene ID **83858**

Target/Specificity
ATAD3B; ATAD3B antibody is predicted to not cross-react with other ATAD protein family members. At least three isoforms of ATAD3B are known to exist.

Reconstitution & Storage
ATAD3B antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
ATAD3B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ATAD3B Antibody - Protein Information

Name ATAD3B

Synonyms KIAA1273, TOB3

Function
May play a role in a mitochondrial network organization typical for stem cells, characterized by reduced mitochondrial metabolism, low mtDNA copies and fragmentated mitochondrial network. may act by suppressing ATAD3A function, interfering with ATAD3A interaction with matrix nucleoid complexes.

Cellular Location
Mitochondrion inner membrane; Peripheral membrane protein. Note=Has been found to co-purify with nucleoids (PubMed:22453275). Since it does not face the mitochondrial matrix, the association with nucleoids could be mediated by ATAD3A

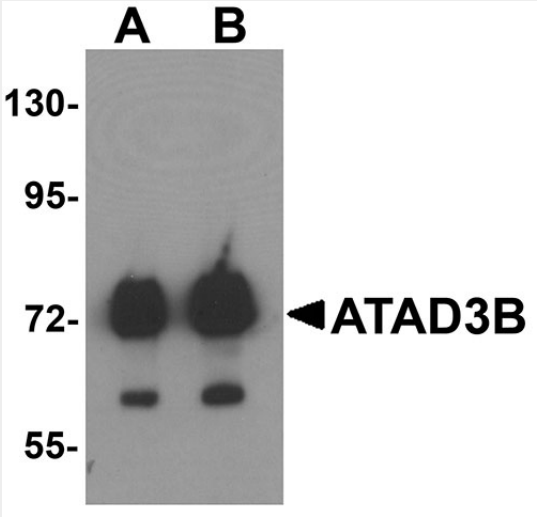
Tissue Location
Tends to be down-regulated in differentiated cells and re-expressed in pluripotent stem cells or cancer cells (at protein level).

ATAD3B Antibody - Protocols

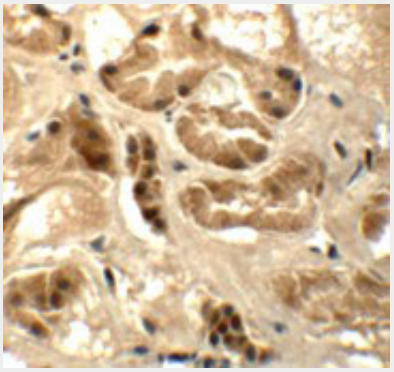
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATAD3B Antibody - Images



Western blot analysis of ATAD3B in human kidney tissue lysate with ATAD3B antibody at (A) 1 and (B) 2 µg/mL .



Immunohistochemistry of ATAD3B in human kidney tissue with ATAD3B antibody at 5 µg/mL.

ATAD3B Antibody - Background

ATAD3B Antibody: ATAD3B is a member of the AAA ATPase family, a family of proteins that catalyze ATP into ADP and are involved in several cellular functions such as cell-cycle regulation, protein proteolysis and transport. The AAA ATPase family is characterized by a highly conserved AAA motif containing Walker homology sequences and imparting ATPase activity. Mitochondrial membrane proteins ATAD3A/B contribute to the stabilization of nucleoids and may participate in the transformation pathway and the chemosensitivity of oligodendrogliomas. The gene encoding ATAD3A/B/C maps to human chromosome 1 and has been suggested to be an anti-apoptotic marker.

ATAD3B Antibody - References

Patel S and Latterich M. The AAA team: related ATPases with diverse functions. Trends Cell Biol. 1998; 8:65-71.
Ogura T and Wilkinson AJ. AAA+ superfamily ATPases: common structure—diverse function. Genes Cells 2001; 6:575-97.
Hubstenberger A, Labourdette G, Baudier J, et al. ATAD3A and ATAD3B are distal 1p-located genes differentially expressed in human glioma cell lines and present in vitro anti-oncogenic and chemoresistant properties. Exp. Cell Res. 2008; 314:2870-83
Fang HY, Chang CL, Hsu SH, et al. ATPase family AAA domain-containing 3A is a novel anti-apoptotic factor in lung adenocarcinoma cells. J. Cell Sci. 2010; 123:1171-80.