

ATAD3B Antibody

Catalog # ASC11341

Product Information

Application	WB, E, IHC-P
Primary Accession	Q5T9A4
Other Accession	NP_114127 , 75677353
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	72573
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ATAD3B antibody can be used for detection of ATAD3B by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL.

Additional Information

Gene ID	83858
Other Names	ATPase family AAA domain-containing protein 3B, AAA-TOB3, ATAD3B, KIAA1273, TOB3
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°C for three months and -20°C, 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.

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 fragmented 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).

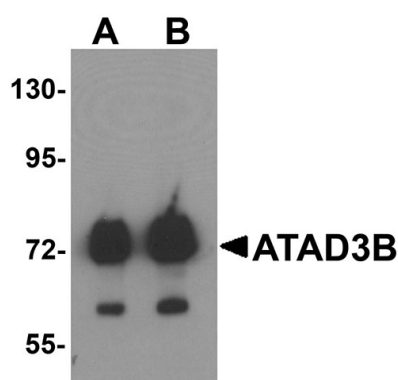
Background

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.

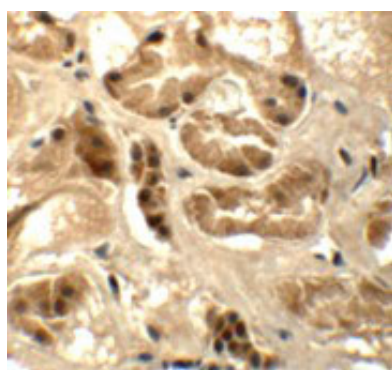
References

- 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.

Images



Western blot analysis of ATAD3B in human kidney tissue lysate with ATAD3B antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



Immunohistochemistry of ATAD3B in human kidney tissue with ATAD3B antibody at 5 $\mu\text{g/mL}$.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.