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ATP5O Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP8563a

Specification

ATP5O Antibody (N-term) - Product Information

Application	**WB, FC, IF, IHC-P,E**
Primary Accession	P48047
Other Accession	Q2EN81, P13621
Reactivity	**Human**
Predicted	**Bovine, Pig**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**23277**
Antigen Region	**38-64**

ATP5O Antibody (N-term) - Additional Information

Gene ID 539

Other Names
ATP synthase subunit O, mitochondrial, Oligomycin sensitivity conferral protein, OSCP, ATP5O, ATPO

Target/Specificity
This ATP5O antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 38-64 amino acids from the N-terminal region of human ATP5O.

Dilution
WB~~1:1000
FC~~1:10~50
IF~~1:10~50
IHC-P~~1:50~100
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATP5O Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATP5O Antibody (N-term) - Protein Information

Name ATP5PO (HGNC:850)

Synonyms ATP5O, ATPO

Function Subunit OSCP, of the mitochondrial membrane ATP synthase complex (F(1)F(0) ATP synthase or Complex V) that produces ATP from ADP in the presence of a proton gradient across the membrane which is generated by electron transport complexes of the respiratory chain (PubMed:37244256). ATP synthase complex consist of a soluble F(1) head domain - the catalytic core - and a membrane F(1) domain - the membrane proton channel (PubMed:37244256). These two domains are linked by a central stalk rotating inside the F(1) region and a stationary peripheral stalk (PubMed:37244256). During catalysis, ATP synthesis in the catalytic domain of F(1) is coupled via a rotary mechanism of the central stalk subunits to proton translocation (Probable). In vivo, can only synthesize ATP although its ATP hydrolase activity can be activated artificially in vitro (By similarity). Part of the complex F(0) domain (PubMed:37244256). Part of the complex F(0) domain and the peripheric stalk, which acts as a stator to hold the catalytic alpha(3)beta(3) subcomplex and subunit a/ATP6 static relative to the rotary elements (By similarity).

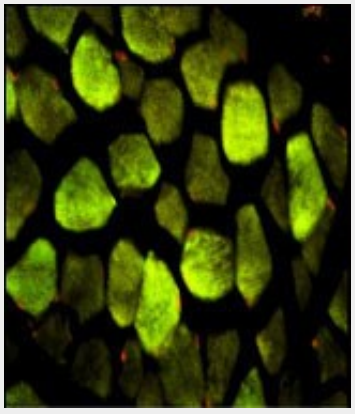
Cellular Location
Mitochondrion. Mitochondrion inner membrane

ATP5O Antibody (N-term) - 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

ATP5O Antibody (N-term) - Images



Immunofluorescence analysis of ATP5O Antibody (N-term) with paraffin-embedded human skeletal muscle. 0.05 mg/ml primary antibody was followed by FITC-conjugated goat anti-rabbit IgG (whole molecule). FITC emits green fluorescence.Red counterstaining is PI.

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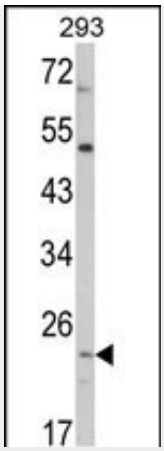
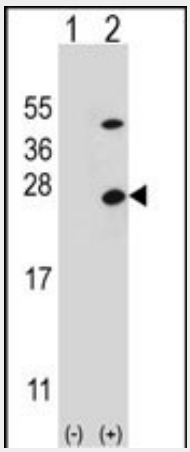
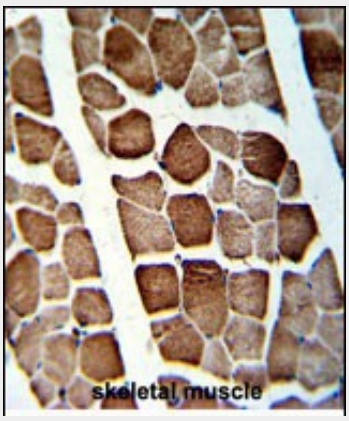


Western blot analysis of ATP5O Antibody (N-term) (Cat. #AP8563a) in 293 cell line lysates (35ug/lane). ATP5O (arrow) was detected using the purified Pab.



Western blot analysis of ATP5O (arrow) using rabbit polyclonal ATP5O Antibody (N-term) (Cat. #AP8563a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the ATP5O gene.



Formalin-fixed and paraffin-embedded human skeletal muscle with ATP5O Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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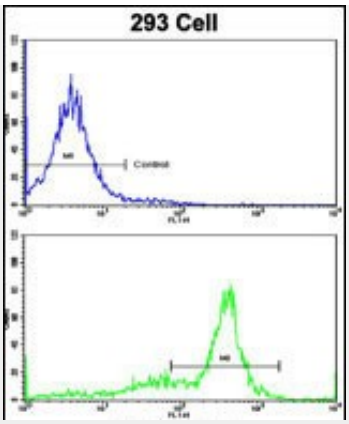

Flow cytometric analysis of 293 cells using ATP5O Antibody (N-term)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ATP5O Antibody (N-term) - Background

ATP5O is a component of the F-type ATPase found in the mitochondrial matrix. F-type ATPases are composed of a catalytic core and a membrane proton channel. This protein appears to be part of the connector linking these two components and may be involved in transmission of conformational changes or proton conductance.

ATP5O Antibody (N-term) - References

Wang,L., et.al., Cancer Epidemiol. Biomarkers Prev. 17 (12), 3558-3566 (2008)
Contessi,S., et.al., J. Bioenerg. Biomembr. 39 (4), 291-300 (2007)