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ATP5I Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP53286

Product Information

Application	WB
Primary Accession	P56385
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	7933

Additional Information

Gene ID	521
Other Names	ATP synthase subunit e, mitochondrial, ATPase subunit e, ATP5I, ATP5K
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ATP5I. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ATP5ME (HGNC:846)
Function	Subunit e, 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).
Cellular Location	Mitochondrion. Mitochondrion inner membrane.

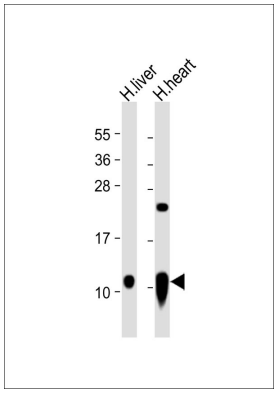
Background

Mitochondrial membrane ATP synthase (F(1)F(0) ATP synthase or Complex V) 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. F-type ATPases consist of two structural domains, F(1) - containing the extramembraneous catalytic core, and F(0) - containing the membrane proton channel, linked together by a central stalk and a peripheral stalk. 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. Part of the complex F(0) domain. Minor subunit located with subunit a in the membrane.

References

Fujiwara T.,et al.Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Xu G.,et al.Proc. Natl. Acad. Sci. U.S.A. 106:19310-19315(2009).
Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).
Van Damme P.,et al.Proc. Natl. Acad. Sci. U.S.A. 109:12449-12454(2012).

Images



All lanes : Anti-ATP5I Antibody at 1:1000 dilution Lane 1: human liver lysate Lane 2: human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 8 kDa Blocking/Dilution buffer: 5% NFDM/TBST.