10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATP5D Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20890c

Product Information

Application	WB, E
Primary Accession	P30049
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB48628
Calculated MW	17490

Additional Information

Gene ID	513
Other Names	ATP synthase subunit delta, mitochondrial, F-ATPase delta subunit, ATP5D
Target/Specificity	This ATP5D antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 156-188 amino acids from the C-terminal region of human ATP5D.
Dilution	WB~~1:1000-1:4000 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	ATP5D Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP5F1D (HGNC:837)
Function	Subunit delta, 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 (Probable) (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). With the central stalk subunit gamma, is essential for the biogenesis of F(1) catalytic part of the ATP synthase complex namely in the formation of F1 assembly intermediate (PubMed:29499186).

Cellular Location Mitochondrion. Mitochondrion inner membrane.

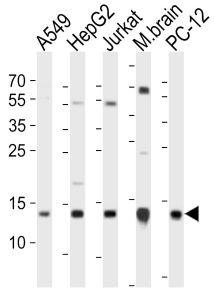
Background

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 turnover 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(1) domain and of the central stalk which is part of the complex rotary element. Rotation of the central stalk against the surrounding alpha(3)beta(3) subunits leads to hydrolysis of ATP in three separate catalytic sites on the beta subunits.

References

Jordan E.M.,et al.Biochim. Biophys. Acta 1130:123-126(1992).
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Grimwood J.,et al.Nature 428:529-535(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.
Hochstrasser D.F.,et al.Electrophoresis 13:992-1001(1992).

Images



Western blot analysis of lysates from A549, HepG2, Jurkat cell line, mouse brain tissue lysate, rat PC-12 cell line (from left to right), using ATP5D Antibody (C-term)(Cat. #AP20890c). AP20890c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

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