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ATP5B Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP2973c

Specification

ATP5B Antibody (Center) Blocking Peptide - Product Information

Primary Accession P06576

ATP5B Antibody (Center) Blocking Peptide - Additional Information

Gene ID 506

Other Names
ATP synthase subunit beta, mitochondrial, ATP5B, ATPMB, ATPSB

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2973c was selected from the Center region of human ATP5B. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ATP5B Antibody (Center) Blocking Peptide - Protein Information

Name ATP5F1B (HGNC:830)

Function
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. Subunits alpha and beta form the catalytic core in F(1). 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.

Cellular Location
Mitochondrion inner membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:P00829};

Matrix side {ECO:0000250|UniProtKB:P00829, ECO:0000269|PubMed:25168243}

ATP5B Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

ATP5B Antibody (Center) Blocking Peptide - Images

ATP5B Antibody (Center) Blocking Peptide - Background

ATP5B is a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, utilizing an electrochemical gradient of protons across the inner membrane during oxidative phosphorylation. ATP synthase is composed of two linked multi-subunit complexes: the soluble catalytic core, F1, and the membrane-spanning component, Fo, comprising the proton channel. The catalytic portion of mitochondrial ATP synthase consists of 5 different subunits (alpha, beta, gamma, delta, and epsilon) assembled with a stoichiometry of 3 alpha, 3 beta, and a single representative of the other 3. The proton channel consists of three main subunits (a, b, c). It is the beta subunit of the catalytic core.

ATP5B Antibody (Center) Blocking Peptide - References

Neckelmann,N., et.al., Genomics 5 (4), 829-843 (1989)Ohta,S., et.al., J. Biol. Chem. 263 (23), 11257-11262 (1988)Wallace,D.C., et.al., Curr. Genet. 12 (2), 81-90 (1987)