

ATP5D Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP16838b**Specification**

ATP5D Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P30049](#)**ATP5D Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 513**Other Names**

ATP synthase subunit delta, mitochondrial, F-ATPase delta subunit, ATP5D

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.

ATP5D Antibody (C-term) Blocking Peptide - Protein Information**Name** ATP5F1D ([HGNC:837](#))**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 (PubMed:29478781). 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 (PubMed:1531933).

Cellular Location

Mitochondrion. Mitochondrion inner membrane.

ATP5D Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ATP5D Antibody (C-term) Blocking Peptide - Images

ATP5D Antibody (C-term) Blocking Peptide - Background

This gene encodes 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, F_o, 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). This gene encodes the delta subunit of the catalytic core. Alternatively spliced transcript variants encoding the same isoform have been identified.

ATP5D Antibody (C-term) Blocking Peptide - References

Grimwood, J., et al. Nature 428(6982):529-535(2004) Itoh, H., et al. Nature 427(6973):465-468(2004) Cross, R.L. Nature 427(6973):407-408(2004) Hong, S., et al. J. Bioenerg. Biomembr. 35(2):95-120(2003) Medeiros, D.M., et al. J. Bioenerg. Biomembr. 34(5):389-395(2002)