

ATP5A1 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP9777c**Specification**

ATP5A1 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P25705](#)**ATP5A1 Antibody (C-term) Blocking Peptide - Additional Information**

Gene ID 498

Other Names

ATP synthase subunit alpha, mitochondrial, ATP5A1, ATP5A, ATP5AL2, ATPM

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.

ATP5A1 Antibody (C-term) Blocking Peptide - Protein InformationName ATP5F1A ([HGNC:823](#))**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. Subunit alpha does not bear the catalytic high-affinity ATP-binding sites (By similarity). Binds the bacterial siderophore enterobactin and can promote mitochondrial accumulation of enterobactin-derived iron ions (PubMed:30146159).

Cellular Location

Mitochondrion. Mitochondrion inner membrane {ECO:0000250|UniProtKB:P19483}; Peripheral membrane protein {ECO:0000250|UniProtKB:P19483}; Matrix side {ECO:0000250|UniProtKB:P19483}. Cell membrane; Peripheral membrane protein; Extracellular side. Note=Colocalizes with HRG on the cell surface of T-cells (PubMed:19285951).

Tissue Location

Fetal lung, heart, liver, gut and kidney. Expressed at higher levels in the fetal brain, retina and spinal cord

ATP5A1 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

ATP5A1 Antibody (C-term) Blocking Peptide - Images**ATP5A1 Antibody (C-term) Blocking Peptide - Background**

This gene encodes a subunit of mitochondrial ATP synthase. Mitochondrial ATP synthase catalyzes ATP synthesis, using 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 alpha subunit of the catalytic core.

ATP5A1 Antibody (C-term) Blocking Peptide - References

Pandey, N.R., et al. Am. J. Pathol. 175(4):1777-1787(2009) Seth, R., et al. J. Clin. Pathol. 62(7):598-603(2009) Law, I.K., et al. Proteomics 9(9):2444-2456(2009) Martins-de-Souza, D., et al. BMC Psychiatry 9, 17 (2009)