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COQ7 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5880b

Specification

COQ7 Antibody (C-term) - Product Information

Application	**IHC-P, FC, WB,E**
Primary Accession	Q99807
Other Accession	NP_057222.2, NP_001177912.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**24277**
Antigen Region	**162-191**

COQ7 Antibody (C-term) - Additional Information

Gene ID 10229

Other Names
Ubiquinone biosynthesis protein COQ7 homolog, Coenzyme Q biosynthesis protein 7 homolog, Timing protein clk-1 homolog, COQ7

Target/Specificity
This COQ7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 162-191 amino acids from the C-terminal region of human COQ7.

Dilution
IHC-P~~1:50~100
FC~~1:10~50
WB~~1:1000
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
COQ7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

COQ7 Antibody (C-term) - Protein Information

Name COQ7 {ECO:0000255|HAMAP-Rule:MF_03194, ECO:0000312|HGNC:HGNC:2244}

Function Catalyzes the hydroxylation of the 5-methoxy-2-methyl-3-(all-trans-polyprenyl)benzoquinone at the C6 position and participates in the biosynthesis of ubiquinone (Probable). Catalyzes the reaction through a substrate-mediated reduction pathway, whereby NADH shuttles electrons to 5-methoxy-2-methyl-3-(all-trans-decaprenyl)benzoquinone, which then transfers the electrons to the two Fe(3+) centers (PubMed:23445365). The binding of 5-methoxy-2-methyl-3-(all-trans- polyprenyl)benzoquinone (DMQn) mediates reduction of the diiron center by nicotinamide adenine dinucleotide (NADH) and initiates oxygen activation for subsequent DMQ hydroxylation (PubMed:23445365). The physiological substrates are 5-methoxy-2-methyl-3-(all-trans- nonaprenyl)benzoquinone (DMQ(9)) and 5-methoxy-2-methyl-3-(all-trans- decaprenyl)benzoquinone (DMQ(10)), however in vitro the enzyme does not have any specificity concerning the length of the polyprenyl tail, and accepts tails of various lengths with similar efficiency (PubMed:23445365, PubMed:28409910). Also has a structural role in the COQ enzyme complex, stabilizing other COQ polypeptides. Involved in lifespan determination in a ubiquinone-independent manner (By similarity). Plays a role in modulating mitochondrial stress responses, acting in the nucleus, perhaps via regulating gene expression, independent of its characterized mitochondrial function in ubiquinone biosynthesis (PubMed:25961505).

Cellular Location
Mitochondrion inner membrane {ECO:0000255|HAMAP- Rule:MF_03194}; Peripheral membrane protein {ECO:0000255|HAMAP- Rule:MF_03194}; Matrix side {ECO:0000255|HAMAP-Rule:MF_03194} Mitochondrion. Nucleus. Chromosome

Tissue Location
Expressed dominantly in heart and skeletal muscle.

COQ7 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

COQ7 Antibody (C-term) - Images

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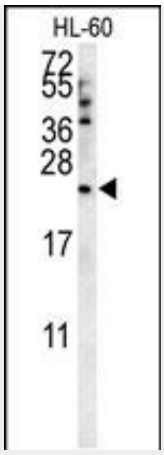
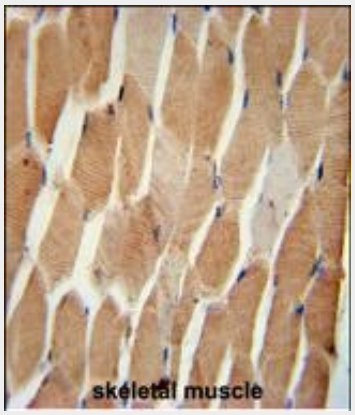
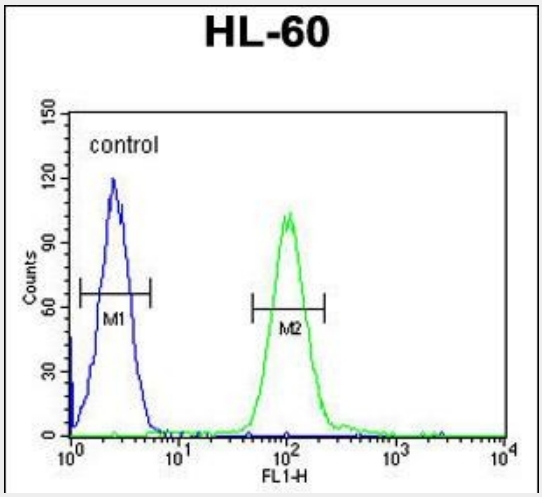


COQ7 Antibody (C-term) (Cat. #AP5880b) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the COQ7 antibody detected the COQ7 protein (arrow).



COQ7 Antibody (C-term) (Cat. #AP5880b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skeletal muscle followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the COQ7 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



COQ7 Antibody (C-term) (Cat. #AP5880b) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.