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COQ7 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55369

Specification

COQ7 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q99807
Reactivity	**Rat, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**24277**

COQ7 Polyclonal Antibody - Additional Information

Gene ID 10229

Other Names
5-demethoxyubiquinone hydroxylase, mitochondrial {ECO:0000255|HAMAP-Rule:MF_03194}, DMQ hydroxylase {ECO:0000255|HAMAP-Rule:MF_03194}, 1.14.99.60 {ECO:0000255|HAMAP-Rule:MF_03194}, Timing protein clk-1 homolog {ECO:0000255|HAMAP-Rule:MF_03194}, Ubiquinone biosynthesis monooxygenase COQ7 {ECO:0000255|HAMAP-Rule:MF_03194}, COQ7 {ECO:0000255|HAMAP-Rule:MF_03194}

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format
0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

COQ7 Polyclonal Antibody - 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 Polyclonal Antibody - 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 Polyclonal Antibody - Images