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COQ7 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15048

Product Information

Application	WB
Primary Accession	Q99807
Other Accession	NM_001190983, NP_001177912
Reactivity	Human, Mouse, Rat, Rabbit, Dog, Guinea Pig, Horse, Bovine, Yeast
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Guinea Pig, Horse, Bovine, Yeast
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24277

Additional Information

Gene ID	10229
Alias Symbol	CAT5, CLK-1, CLK1
Other Names	Ubiquinone biosynthesis protein COQ7 homolog, Coenzyme Q biosynthesis protein 7 homolog, Timing protein clk-1 homolog, COQ7
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-COQ7 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	COQ7 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

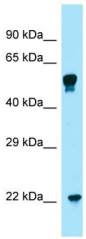
Name	COQ7 {ECO:0000255|HAMAP-Rule:MF_03194, ECO:0000312|HGNC:HGNC:2244}
Function	Catalyzes the hydroxylation of the 5-methoxy-2-methyl-3-(all-trans-polyprenyl)benzoquinone at the C6 position and participates in the biosynthesis of ubiquinone (Probable). Catalyzes the reaction through a substrate-mediated 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.

References

Asaumi S.,et al.Genomics 58:293-301(1999).
Wiemann S.,et al.Genome Res. 11:422-435(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Martin J.,et al.Nature 432:988-994(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

Images



Host: Rabbit
Target Name: COQ7
Antibody Dilution: 1.0µg/ml
Sample Tissue: THP-1 cell lysate