

COQ3 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55368**Specification****COQ3 Polyclonal Antibody - Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	O9NZJ6
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	41 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human COQ3
Epitope Specificity	151-250/369
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion matrix.
SIMILARITY	Belongs to the methyltransferase superfamily. UbiG/COQ3 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

Ubiquinone, also known as coenzyme Q, or Q, is a critical component of the electron transport pathways of both eukaryotes and prokaryotes (Jonassen and Clarke, 2000 [PubMed 10777520]). This lipid consists of a hydrophobic isoprenoid tail and a quinone head group. The tail varies in length depending on the organism, but its purpose is to anchor coenzyme Q to the membrane. The quinone head group is responsible for the activity of coenzyme Q in the respiratory chain. The *S. cerevisiae* COQ3 gene encodes an O-methyltransferase required for 2 steps in the biosynthetic pathway of coenzyme Q. This enzyme methylates an early coenzyme Q intermediate, 3,4-dihydroxy-5-polyprenylbenzoic acid, as well as the final intermediate in the pathway, converting demethyl-ubiquinone to coenzyme Q. The COQ3 gene product is also capable of methylating the distinct prokaryotic early intermediate 2-hydroxy-6-polyprenyl phenol.[supplied by OMIM, Mar 2008]

COQ3 Polyclonal Antibody - Additional Information**Gene ID** 51805**Other Names**

Ubiquinone biosynthesis O-methyltransferase, mitochondrial
{ECO:0000255|HAMAP-Rule:MF_03190}, 3-demethylubiquinol 3-O-methyltransferase
{ECO:0000255|HAMAP-Rule:MF_03190}, 2.1.1.64 {ECO:0000255|HAMAP-Rule:MF_03190},

Polyprenyldihydroxybenzoate methyltransferase {ECO:0000255|HAMAP-Rule:MF_03190},
2.1.1.114 {ECO:0000255|HAMAP-Rule:MF_03190}, COQ3 {ECO:0000255|HAMAP-Rule:MF_03190}

Dilution

IHC-P~~N/A<br \><span class
="dilution_IHC-F">IHC-F~~N/A<br \><span class
="dilution_IF">IF~~1:50~200<br \>ICC~~N/A<br
\>E~~N/A

Storage

Store at -20 °C 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 °C.

COQ3 Polyclonal Antibody - Protein Information

Name COQ3 {ECO:0000255|HAMAP-Rule:MF_03190, ECO:0000303|PubMed:38425362}

Function

O-methyltransferase required for two non-consecutive steps during ubiquinone biosynthesis (By similarity) (PubMed:10777520, PubMed:38425362). Catalyzes the 2 O-methylation of 3,4-dihydroxy-5-(all-trans-decaprenyl)benzoic acid into 4-hydroxy-3-methoxy-5-(all-trans-decaprenyl)benzoic acid (By similarity) (PubMed:10777520, PubMed:38425362). Also catalyzes the last step of ubiquinone biosynthesis by mediating methylation of 3-demethylubiquinone into ubiquinone (By similarity) (PubMed:38425362). Also able to mediate the methylation of 3-demethylubiquinol-10 into ubiquinol-10 (By similarity) (PubMed:10777520).

Cellular Location

Mitochondrion inner membrane {ECO:0000255|HAMAP- Rule:MF_03190,
ECO:0000269|PubMed:27499296}; Peripheral membrane protein
{ECO:0000255|HAMAP-Rule:MF_03190}; Matrix side {ECO:0000255|HAMAP-Rule:MF_03190}

COQ3 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 Cytometry](#)
- [Cell Culture](#)

COQ3 Polyclonal Antibody - Images