

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 | Q9NZJ6 |
| 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},

Polyisoprenylhydroxybenzoate 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
IHC-F~~N/A
IF~~1:50~200
ICC~~N/A
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