

**COQ3 Antibody (Center) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP8765c****Specification****COQ3 Antibody (Center) Blocking Peptide - Product Information****Primary Accession**[Q9NZJ6](#)**COQ3 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 51805**Other Names**

Hexaprenyldihydroxybenzoate methyltransferase, mitochondrial, 2-polyprenyl-6-hydroxyphenol methylase, 4-dihydroxy-5-hexaprenylbenzoate methyltransferase, DHHB methyltransferase, DHHB-MT, DHHB-MTase, 3-demethylubiquinone-10 3-methyltransferase, Dihydroxyhexaprenylbenzoate methyltransferase, COQ3

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody <a href=/products/AP8765c>AP8765c</a> was selected from the Center region of human COQ3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**COQ3 Antibody (Center) Blocking Peptide - 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:<a href="http://www.uniprot.org/citations/10777520" target="\_blank">10777520</a>, PubMed:<a href="http://www.uniprot.org/citations/38425362" target="\_blank">38425362</a>). 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:<a href="http://www.uniprot.org/citations/10777520" target="\_blank">10777520</a>, PubMed:<a href="http://www.uniprot.org/citations/38425362" target="\_blank">38425362</a>). Also catalyzes the last step of ubiquinone biosynthesis by mediating methylation of 3-demethylubiquinone into ubiquinone (By similarity) (PubMed:<a href="http://www.uniprot.org/citations/10777520" target="\_blank">10777520</a>, PubMed:<a href="http://www.uniprot.org/citations/38425362" target="\_blank">38425362</a>).

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Also able to mediate the methylation of 3-demethylubiquinol-10 into ubiquinol-10 (By similarity) (PubMed:[10777520](http://www.uniprot.org/citations/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 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **COQ3 Antibody (Center) Blocking Peptide - Images**

### **COQ3 Antibody (Center) Blocking Peptide - Background**

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. COQ3 is 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 is also capable of methylating the distinct prokaryotic early intermediate 2-hydroxy-6-polyprenyl phenol.

### **COQ3 Antibody (Center) Blocking Peptide - References**

Olsen,J.V., et.al., Cell 127 (3), 635-648 (2006)