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COX15 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP9183c

Specification

COX15 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q7KZN9

COX15 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 1355

Other Names
Cytochrome c oxidase assembly protein COX15 homolog, COX15

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP9183c was selected from the Center region of human COX15. 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.

COX15 Antibody (Center) Blocking Peptide - Protein Information

Name COX15

Function
Catalyzes the second reaction in the biosynthesis of heme A, a prosthetic group of mitochondrial cytochrome c oxidase (CcO) (PubMed:12474143). Heme A is synthesized from heme B by two sequential enzymatic reactions catalyzed by heme O synthase (HOS) and heme A synthase (HAS). HAS catalyzes the conversion of heme O to heme A by two successive hydroxylations of the methyl group at C8, in a reaction that involves matrix ferredoxin and ferredoxin reductase. The first hydroxylation forms heme I, the second hydroxylation results in an unstable dihydroxymethyl group, which spontaneously dehydrates, resulting in the formyl group of heme A (By similarity).

Cellular Location
Mitochondrion inner membrane; Multi-pass membrane protein

Tissue Location
Predominantly found in tissues characterized by high rates of oxidative phosphorylation (OxPhos), including muscle, heart, and brain.

COX15 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

COX15 Antibody (Center) Blocking Peptide - Images

COX15 Antibody (Center) Blocking Peptide - Background

COX15 is the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex.

COX15 Antibody (Center) Blocking Peptide - References

Vitali,M., et.al., J Neural Transm 116 (12), 1635-1641 (2009)Dassa,E.P., et.al., EMBO Mol Med 1 (1), 30-36 (2009)