

UQCRC2 Rabbit mAb

Catalog # AP79008

Product Information

Application	WB, IHC-P, FC, IP
Primary Accession	P22695
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Chromatography
Calculated MW	48443

Additional Information

Gene ID	7385
Other Names	UQCRC2
Dilution	WB~~1:1000 IHC-P~~N/A FC~~1:10~50 IP~~N/A
Format	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	UQCRC2
Function	Component of the ubiquinol-cytochrome c oxidoreductase, a multisubunit transmembrane complex that is part of the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. The cytochrome b-c1 complex catalyzes electron transfer from ubiquinol to cytochrome c, linking this redox reaction to translocation of protons across the mitochondrial inner membrane, with protons being carried across the membrane as hydrogens on the quinol. In the process called Q cycle, 2 protons are consumed from the matrix, 4 protons are released into the intermembrane space and 2 electrons are passed to cytochrome c (By similarity). The 2 core subunits UQCRC1/QCR1

and UQCRC2/QCR2 are homologous to the 2 mitochondrial-processing peptidase (MPP) subunits beta-MPP and alpha-MPP respectively, and they seem to have preserved their MPP processing properties (By similarity). May be involved in the in situ processing of UQCRFS1 into the mature Rieske protein and its mitochondrial targeting sequence (MTS)/subunit 9 when incorporated into complex III (Probable).

Cellular Location

Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07257};
Peripheral membrane protein {ECO:0000250|UniProtKB:P07257}; Matrix side {ECO:0000250|UniProtKB:P07257}

Background

UQCRC2(Ubiquinol-cytochrome-c reductase complex core protein 2) is also named as complex III subunit 2, core protein II and belongs to the UQCRC2/QCR2 subfamily. The bc1 complex contains 11 subunits: 3 respiratory subunits (cytochrome b, cytochrome c1 and Rieske/UQCRFS1), 2 core proteins (UQCRC1/QCR1 and UQCRC2/QCR2) and 6 low-molecular weight proteins (UQCRH/QCR6, UQCRB/QCR7, UQCRQ/QCR8, UQCR10/QCR9, UQCR11/QCR10 and a cleavage product of Rieske/UQCRFS1) and is part of the mitochondrial respiratory chain. This protein distributes in mitochondrion inner membrane, peripheral membrane protein and matrix side.

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