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KD-Validated Anti-UQCRFS1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1755

Product Information

Application	WB, FC, ICC
Primary Accession	P47985
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	24GB2460
Calculated MW	29668
Gene Name	UQCRFS1
Aliases	UQCRFS1; Ubiquinol-Cytochrome C Reductase, Rieske Iron-Sulfur Polypeptide 1; RISP; Cytochrome B-C1 Complex Subunit 5; UQCR5; RIS1; RIP1; Cytochrome B-C1 Complex Subunit Rieske, Mitochondrial; Ubiquinol-Cytochrome C Reductase Iron-Sulfur Subunit; Rieske Iron-Sulfur Protein; Rieske Protein UQCRFS1; Complex III Subunit 5; Epididymis Secretory Sperm Binding Protein; EC 1.10.2.2; EC 7.1.1.8; MC3DN10
Immunogen	A synthesized peptide derived from human UQCRFS1

Additional Information

Gene ID	7386
Other Names	Cytochrome b-c1 complex subunit Rieske, mitochondrial, 7.1.1.8, Complex III subunit 5, Cytochrome b-c1 complex subunit 5, Rieske iron-sulfur protein, RISP, Rieske protein UQCRFS1, Ubiquinol-cytochrome c reductase iron-sulfur subunit, Cytochrome b-c1 complex subunit 9, UQCRFS1 (HGNC:12587)

Protein Information

Name	UQCRFS1 (HGNC:12587)
Function	[Cytochrome b-c1 complex subunit Rieske, mitochondrial]: Component of the ubiquinol-cytochrome c oxidoreductase, a multisubunit transmembrane complex that is part of the mitochondrial electron transport chain which drives oxidative phosphorylation (PubMed:31883641). 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. The Rieske protein is a catalytic core subunit containing a [2Fe-2S] iron- sulfur cluster. It cycles between 2 conformational states during catalysis to transfer electrons from the quinol bound in the Q(0) site in cytochrome b to cytochrome c1 (By similarity). Incorporation of UQCRFS1 is the penultimate step in complex III assembly (PubMed:28673544).
Cellular Location	Mitochondrion inner membrane; Single-pass membrane protein {ECO:0000250|UniProtKB:Q5ZLR5}