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KD-Validated Anti-UQCRFS1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1755

Specification

KD-Validated Anti-UQCRFS1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P47985
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 30 kDa, observed, 23 kDa KDa**
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**

KD-Validated Anti-UQCRFS1 Rabbit Monoclonal Antibody - 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)

KD-Validated Anti-UQCRFS1 Rabbit Monoclonal Antibody - 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).

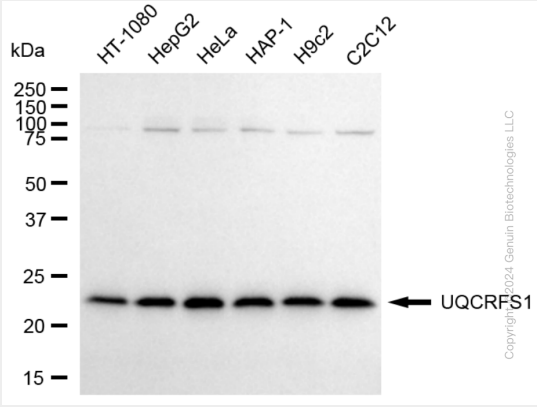
Cellular Location
Mitochondrion inner membrane; Single-pass membrane protein {ECO:0000250|UniProtKB:Q5ZLR5}

KD-Validated Anti-UQCRFS1 Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-UQCRFS1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-UQCRFS1 antibody (Cat#AGI1755). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-UQCRFS1 antibody (Cat#AGI1755, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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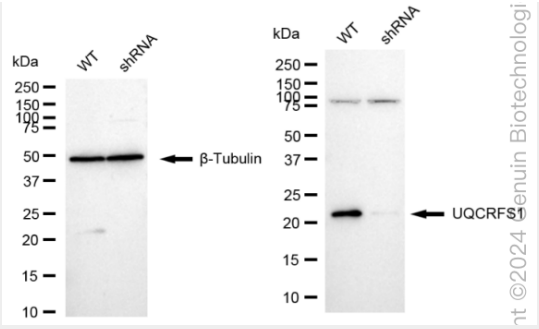
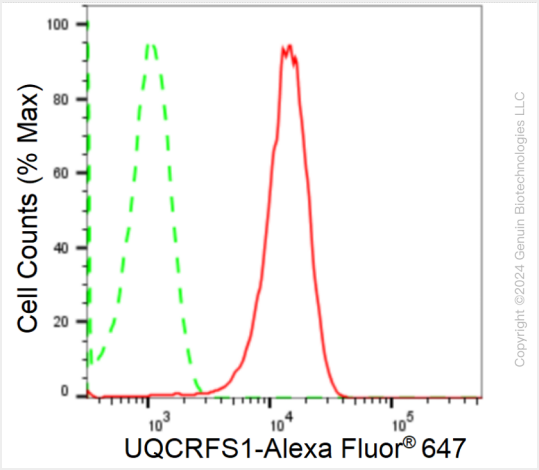
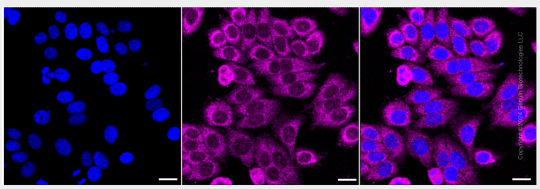


Western blotting analysis using anti-UQCRFS1 antibody (Cat#AGI1755). UQCRFS1 expression in wild type (WT) and UQCRFS1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-UQCRFS1 antibody (Cat#AGI1755, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of UQCRFS1 expression in HepG2 cells using anti-UQCRFS1 antibody (Cat#AGI1755, 1:2,000). Green, isotype control; red, UQCRFS1.



Immunocytochemical staining of HepG2 cells with anti-UQCRFS1 antibody (Cat#AGI1755, 1:1,000). Nuclei were stained blue with DAPI; UQCRFS1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.