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KD-Validated Anti-UQCRC2 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1711

Specification

KD-Validated Anti-UQCRC2 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P22695
Reactivity	**Rat, Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 48 kDa, observed, 48 kDa KDa**
Gene Name	**UQCRC2**
Aliases	**UQCRC2; Ubiquinol-Cytochrome C Reductase Core Protein 2; UQCR2; QCR2; Ubiquinol-Cytochrome-C Reductase Complex Core Protein 2; Ubiquinol-Cytochrome C Reductase Core Protein II; Cytochrome B-C1 Complex Subunit 2, Mitochondrial; Complex III Subunit; Cytochrome Bc-1 Complex Core Protein II; Core Protein II; MC3DN5**
Immunogen	**A synthesized peptide derived from human UQCRC2**

KD-Validated Anti-UQCRC2 Rabbit Monoclonal Antibody - Additional Information

Gene ID **7385**

Other Names
Cytochrome b-c1 complex subunit 2, mitochondrial, Complex III subunit 2, Core protein II, Ubiquinol-cytochrome-c reductase complex core protein 2, UQCRC2

KD-Validated Anti-UQCRC2 Rabbit Monoclonal Antibody - 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).

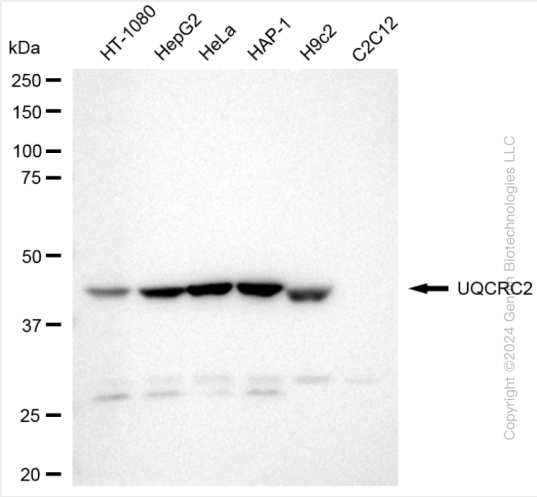
Cellular Location
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07257}; Peripheral membrane protein {ECO:0000250|UniProtKB:P07257}; Matrix side {ECO:0000250|UniProtKB:P07257}

KD-Validated Anti-UQCRC2 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-UQCRC2 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-UQCRC2 antibody (Cat#AGI1711). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-UQCRC2 antibody (Cat#AGI1711, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.

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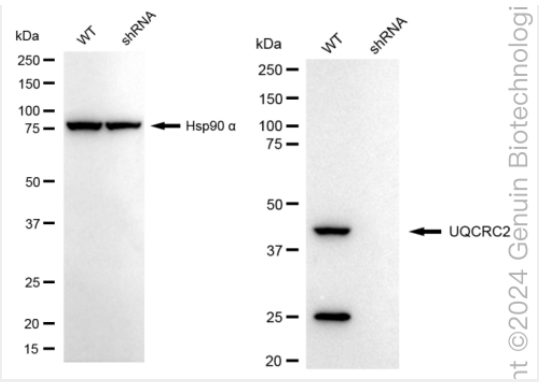
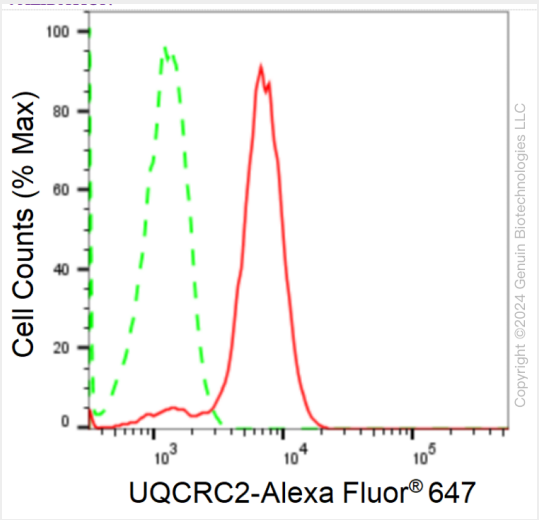
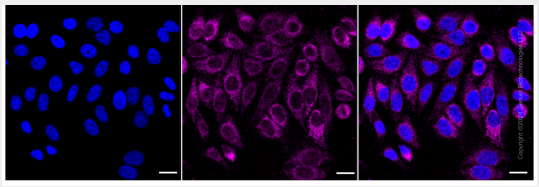


Western blotting analysis using anti-UQCRC2 antibody (Cat#AGI1711). UQCRC2 expression in wild type (WT) and UQCRC2 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-UQCRC2 antibody (Cat#AGI1711, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of UQCRC2 expression in HepG2 cells using anti-UQCRC2 antibody (Cat#AGI1711, 1:2,000). Green, isotype control; red, UQCRC2.



Immunocytochemical staining of HepG2 cells with anti-UQCRC2 antibody (Cat#AGI1711, 1:1,000). Nuclei were stained blue with DAPI; UQCRC2 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.