Anti-Ubiquinol-Cytochrome C Reductase Core Protein I Antibody [PSH01-23]

HA721640

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, IF-Cell
Molecular Wt:	Predicted band size: 53 kDa
Clone number:	PSH01-23

Description: Cytochrome b-c1 complex subunit 1, mitochondrial is a protein that in humans is encoded by the UQCRC1 gene. Its gene product is a subunit of the respiratory chain protein Ubiquinol Cytochrome c Reductase (UQCR, Complex III or Cytochrome bc1 complex), which consists of the products of one mitochondrially encoded gene, MTCYTB (mitochondrial cytochrome b) and ten nuclear genes: UQCRC1, UQCRC2, Cytochrome c1, UQCRFS1 (Rieske protein), UQCRB, "11kDa protein", UQCRH (cyt c1 Hinge protein), Rieske Protein presequence, "cyt. c1 associated protein", and Rieske-associated protein.

Immunogen: Recombinant protein within human UQCRC1 aa 1-480 / 480.

Positive control: HeLa cell lysate, HepG2 cell lysate, HCT 116 cell lysate, 293T cell lysate, PC-3M cell lysate, Jurkat cell lysate, NIH/3T3 cell lysate, PC-12 cell lysate, mouse kidney tissue lysate, mouse brain tissue lysate, rat kidney tissue lysate, rat brain tissue lysate, human kidney tissue, human liver tissue, human small intestine tissue, mouse kidney tissue, HepG2, 293T.

Subcellular location: Mitochondrion inner membrane.

Database links: SwissProt: P31930 Human | Q9CZ13 Mouse | Q68FY0 Rat

Recommended Dilutions:

WB	1:5,000
IHC-P	1:5,000
IF-Tissue	1:1,000
IF-Cell	1:100

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

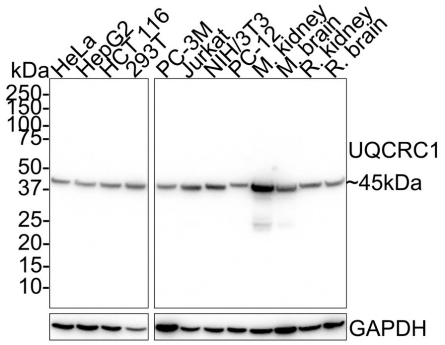

Fig1: Western blot analysis of Ubiquinol-Cytochrome C Reductase Core Protein I on different lysates with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/5,000 dilution.

Lane 1: HeLa cell lysate (20 µg/Lane)
Lane 2: HepG2 cell lysate (20 µg/Lane)
Lane 3: HCT 116 cell lysate (20 µg/Lane)
Lane 4: 293T cell lysate (20 µg/Lane)
Lane 5: PC-3M cell lysate (20 µg/Lane)
Lane 6: Jurkat cell lysate (20 µg/Lane)
Lane 7: NIH/3T3 cell lysate (20 µg/Lane)
Lane 8: PC-12 cell lysate (20 µg/Lane)
Lane 9: Mouse kidney tissue lysate (40 µg/Lane)
Lane 10: Mouse brain tissue lysate (40 µg/Lane)
Lane 11: Rat kidney tissue lysate (40 µg/Lane)
Lane 12: Rat brain tissue lysate (40 µg/Lane)

Predicted band size: 53 kDa
Observed band size: 45 kDa

Exposure time: 8 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721640) at 1/5,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

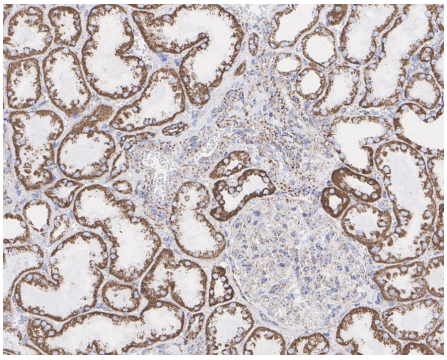

Fig2: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721640) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

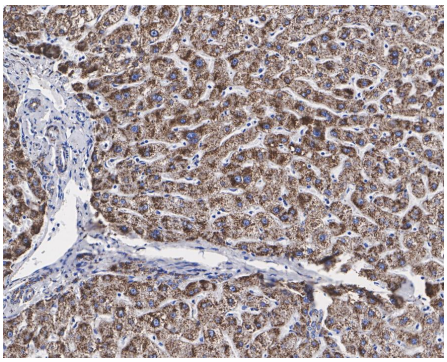

Fig3: Immunohistochemical analysis of paraffin-embedded human liver tissue with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721640) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

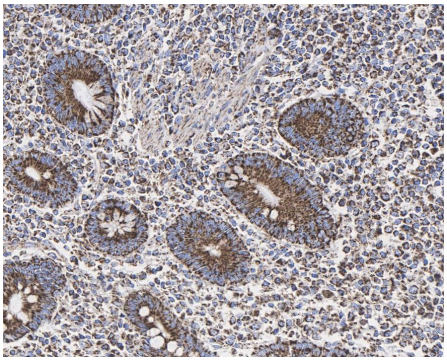

Fig4: Immunohistochemical analysis of paraffin-embedded human small intestine tissue with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721640) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

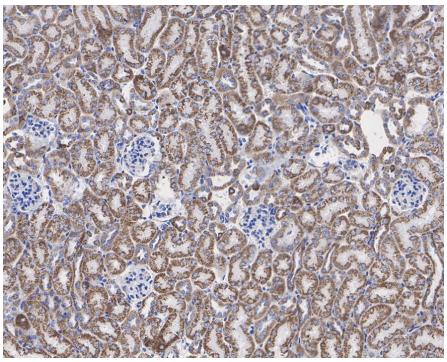

Fig5: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721640) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

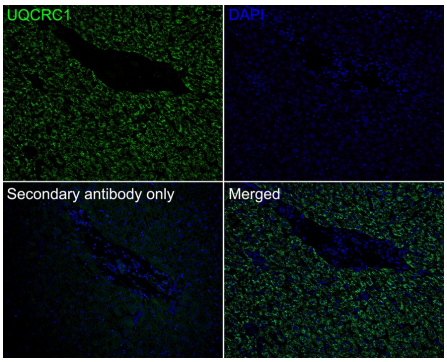

Fig6: Immunofluorescence analysis of paraffin-embedded human liver tissue labeling Ubiquinol-Cytochrome C Reductase Core Protein I with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA721640, green) at 1/1,000 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

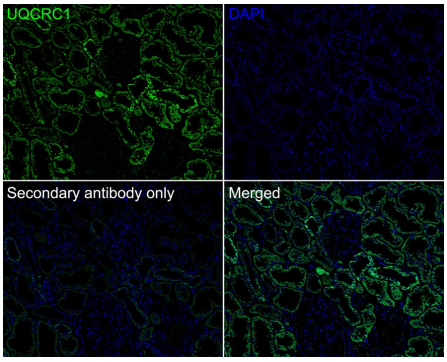

Fig7: Immunofluorescence analysis of paraffin-embedded human kidney tissue labeling Ubiquinol-Cytochrome C Reductase Core Protein I with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA721640, green) at 1/1,000 dilution overnight at 4 ℃, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

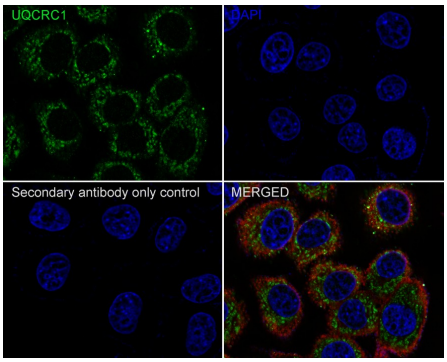

Fig8: Immunocytochemistry analysis of HepG2 cells labeling Ubiquinol-Cytochrome C Reductase Core Protein I with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

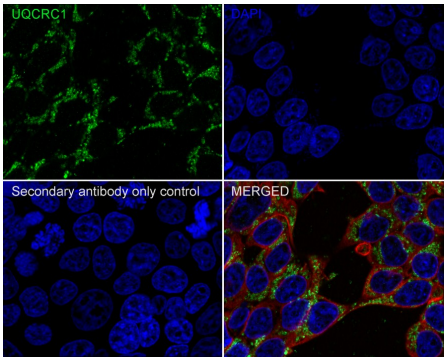

Fig9: Immunocytochemistry analysis of 293T cells labeling Ubiquinol-Cytochrome C Reductase Core Protein I with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Ubiquinol-Cytochrome C Reductase Core Protein I antibody (HA721640) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

Background References

1. Lin CH et al. Mitochondrial UQCRC1 mutations cause autosomal dominant parkinsonism with polyneuropathy. Brain. 2020 Dec
2. Hung YC et al. UQCRC1 engages cytochrome c for neuronal apoptotic cell death. Cell Rep. 2021 Sep