Anti-UQCRH Antibody [JE62-25]

HA720113



Product Type: Recombinant Rabbit monoclonal IgG, primary antibodies

Species reactivity: Human, Mouse, Rat
Applications: WB, IHC-P, FC

Molecular Wt: Predicted band size: 11 kDa

Clone number: JE62-25

Description: 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.

Immunogen: Synthetic peptide within human UQCRH aa 42-91/91.

Positive control: Saos-2 cell lysate, Huh7 cell lysate, RAW264.7 cell lysate, PC-12 cell lysate, mouse

stomach tissue lysate, human kidney tissue, human stomach tissue, human small intestine

tissue, mouse small intestine tissue, rat bladder tissue, THP-1.

Subcellular location: Mitochondrion inner membrane.

Database links: SwissProt: P07919 Human | P99028 Mouse | Q5M915 Rat

Recommended Dilutions:

WB 1:1,000 **IHC-P** 1:400

FC 1:500-1:1,000

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4° C. Store at $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 ℃ long term.

Purity: Protein A affinity purified.

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Images

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Fig1: Western blot analysis of UQCRH on different lysates with Rabbit anti-UQCRH antibody (HA720113) at 1/1,000 dilution.

Lane 1: Saos-2 cell lysate (20 µg/Lane) Lane 2: Huh7 cell lysate (20 µg/Lane) Lane 3: RAW264.7 cell lysate (20 µg/Lane) Lane 4: PC-12 cell lysate (20 µg/Lane)

Lane 2: Mouse stomach tissue lysate (40 µg/Lane)

Predicted band size: 11 kDa Observed band size: 14 kDa

Exposure time: 46 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

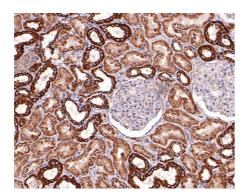


Fig2: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-UQCRH antibody. The section was pretreated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720113, 1/400) for 30 minutes 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.

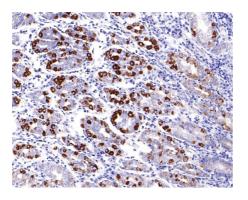


Fig3: Immunohistochemical analysis of paraffin-embedded human stomach tissue using anti-UQCRH antibody. The section was pretreated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720113, 1/400) for 30 minutes 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.

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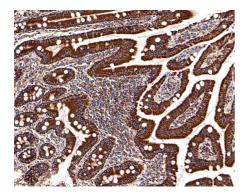


Fig4: Immunohistochemical analysis of paraffin-embedded human small intestine tissue using anti-UQCRH antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (HA720113, 1/400) for 30 minutes 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 small intestine tissue using anti-UQCRH antibody. 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 30 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (HA720113, 1/400) for 30 minutes 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.

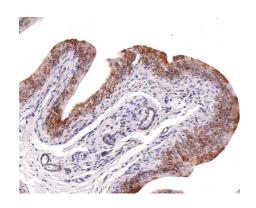


Fig6: Immunohistochemical analysis of paraffin-embedded rat bladder tissue using anti-UQCRH antibody. The section was pretreated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH $_2$ O and PBS, and then probed with the primary antibody (HA720113, 1/100) for 30 minutes 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.

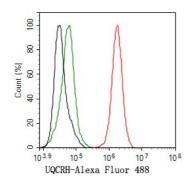


Fig7: Flow cytometric analysis of UQCRH was done on THP-1 cells. The cells were fixed, permeabilized and stained with the primary antibody (HA720113, 1ug/ml) (red) compared with Rabbit IgG, monoclonal - Isotype Control (green). After incubation of the primary antibody at $+4^{\circ}$ C for 1 hour, the cells were stained with a Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG Secondary antibody at 1/1,000 dilution for 30 minutes at $+4^{\circ}$ C (dark incubation).Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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Background References

- 1. Luo Y.et. al. UQCRH downregulation promotes Warburg effect in renal cell carcinoma cells. Sci Rep. 2020 Sep
- 2. Park ER.et. al. The mitochondrial hinge protein, UQCRH, is a novel prognostic factor for hepatocellular carcinoma. Cancer Med. 2017 Apr