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UQCRC1 antibody - N-terminal region
Rabbit Polyclonal Antibody
Catalog # AI14663

Specification

UQCRC1 antibody - N-terminal region - Product Information

Application	**WB**
Primary Accession	P31930
Other Accession	NM_003365, NP_003356
Reactivity	**Human, Mouse, Rat, Rabbit, Pig, Horse, Yeast, Bovine, Guinea Pig, Dog**
Predicted	**Mouse, Rabbit, Chicken, Bovine, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**53kDa KDa**

UQCRC1 antibody - N-terminal region - Additional Information

Gene ID 7384

Alias Symbol	**D3S3191, QCR1, UQCR1**

Other Names
Cytochrome b-c1 complex subunit 1, mitochondrial, Complex III subunit 1, Core protein I, Ubiquinol-cytochrome-c reductase complex core protein 1, UQCRC1

Format
Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

Reconstitution & Storage
Add 50 ul of distilled water. Final anti-UQCRC1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.

Precautions
UQCRC1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

UQCRC1 antibody - N-terminal region - Protein Information

Name UQCRC1

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). Seems to play an important role in the maintenance of proper mitochondrial function in nigral dopaminergic neurons (PubMed:33141179).

Cellular Location
Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07256}; Peripheral membrane protein {ECO:0000250|UniProtKB:P07256}; Matrix side {ECO:0000250|UniProtKB:P07256}

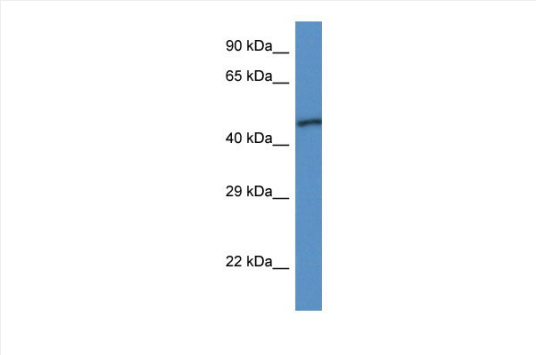
Tissue Location
Expressed in brain, including substantia nigra, striatum, cortex and cerebellum, and in spinal cord, heart, kidney, liver and muscle.

UQCRC1 antibody - N-terminal region - 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

UQCRC1 antibody - N-terminal region - Images



WB Suggested Anti-UQCRC1 Antibody Titration: 1.0 µg/ml
Positive Control: Fetal Heart

UQCRC1 antibody - N-terminal region - References

Hoffman G.G.,et al.J. Biol. Chem. 268:21113-21119(1993).
Islam M.M.,et al.Biochem. Mol. Biol. Int. 32:797-805(1994).

Islam M.M.,et al.Biochem. Mol. Biol. Int. 33:410-410(1994).
Islam M.M.,et al.Biochem. Mol. Biol. Int. 33:815-815(1994).
Ota T.,et al.Nat. Genet. 36:40-45(2004).