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UQCRB Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13008c

Product Information

Application	WB, IHC-P, E
Primary Accession	P14927
Other Accession	NP_006285.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB32714
Calculated MW	13530
Antigen Region	19-47

Additional Information

Gene ID	7381
Other Names	Cytochrome b-c1 complex subunit 7, Complex III subunit 7, Complex III subunit VII, QP-C, Ubiquinol-cytochrome c reductase complex 14 kDa protein, UQCRB, UQBP
Target/Specificity	This UQCRB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 19-47 amino acids from the Central region of human UQCRB.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	UQCRB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	UQCRB
Synonyms	UQBP

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.
Cellular Location	Mitochondrion inner membrane {ECO:0000250|UniProtKB:P00128}; Peripheral membrane protein {ECO:0000250|UniProtKB:P00128}; Matrix side {ECO:0000250|UniProtKB:P00128}

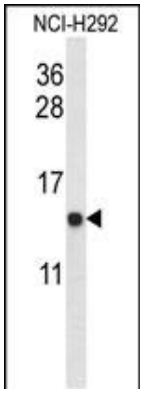
Background

This gene encodes a protein which is part of the ubiquinol-cytochrome c oxidoreductase complex which contains ten nuclear-encoded and one mitochondrial-encoded subunits. The encoded protein binds ubiquinone and participates in the transfer of electrons when ubiquinone is bound. Mutations in this gene are associated with mitochondrial complex III deficiency. A pseudogene has been described on the X chromosome.

References

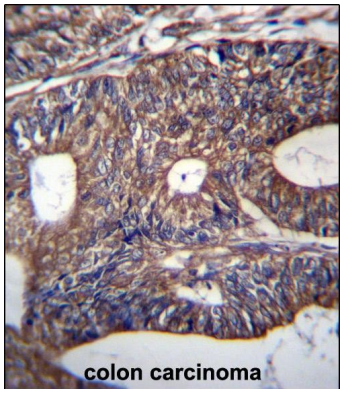
Wang, L., et al. Cancer Epidemiol. Biomarkers Prev. 17(12):3558-3566(2008)
Haut, S., et al. Hum. Genet. 113(2):118-122(2003)
Malaney, S., et al. Cytogenet. Cell Genet. 73(4):297-299(1996)
Suzuki, H., et al. J. Biol. Chem. 265(14):8159-8163(1990)
Hosokawa, Y., et al. Biochem. Int. 21(1):41-44(1990)

Images



UQCRB Antibody (Center) (Cat. #AP13008c) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the UQCRB antibody detected the UQCRB protein (arrow).

UQCRB Antibody (Center) (Cat. #AP13008c)immunohistochemistry analysis in formalin fixed and paraffin embedded human colon carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the



use of UQCRB Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.