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UQCRFS1 Rabbit mAb

Catalog # AP76024

Product Information

Application	WB, IHC-P, IHC-F, FC, IP
Primary Accession	P47985
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	29668

Additional Information

Gene ID	7386
Other Names	UQCRFS1
Dilution	WB~~1:1000-1:5000 IHC-P~~N/A IHC-F~~N/A FC~~1:100-1:200 IP~~1:50-1:100
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

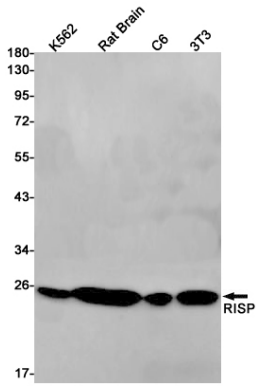
Name	UQCRFS1 (HGNC:12587)
Function	[Cytochrome b-c1 complex subunit Rieske, mitochondrial]: Component of the ubiquinol-cytochrome c oxidoreductase, a multisubunit transmembrane complex that is part of the mitochondrial electron transport chain which drives oxidative phosphorylation (PubMed:31883641). 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. The Rieske protein is a catalytic core subunit containing a [2Fe-2S] iron- sulfur cluster. It cycles between 2 conformational states during catalysis to transfer electrons from the quinol bound in the Q(0) site in cytochrome b to cytochrome c1 (By similarity). Incorporation of UQCRFS1 is the penultimate step in complex III assembly (PubMed:28673544).
Cellular Location	Mitochondrion inner membrane; Single-pass membrane protein {ECO:0000250|UniProtKB:Q5ZLR5}

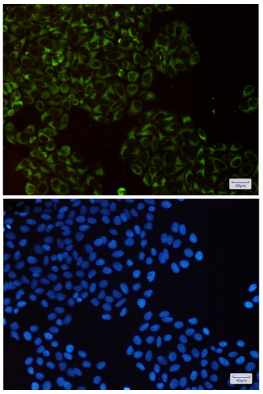
Background

The ubiquinol cytochrome c reductase UQCRFS1 is a key subunit of the cytochrome bc1 complex (complex III) of the mitochondrial respiratory chain. The UQCRFS1 gene encode a 30 kDa protein with a transit peptide and it appears to be involved in development of more aggressive phenotype of breast cancer(PMID:15047214). UQCRFS1 is also named as RISP, complex III subunit 5, cytochrome b-c1 complex subunit 5 and rieske iron-sulfur protein. This antibody is specific to UQCRFS1.

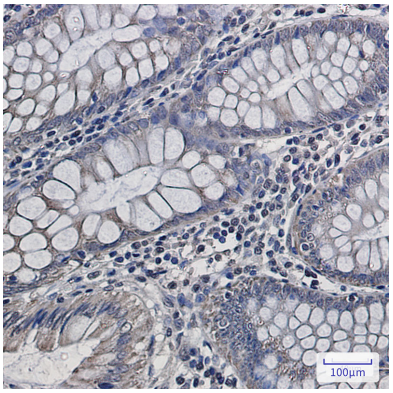
Images



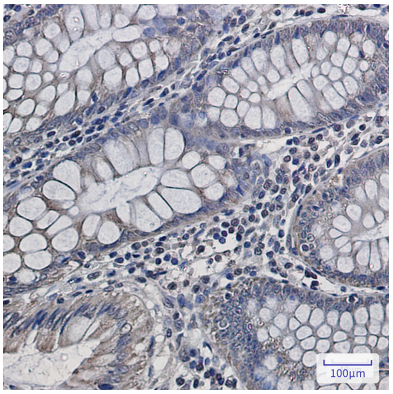
Western blot analysis of RISP in K562, rat Brain, C6, 3T3 lysates using Complex III Subunit 5 antibody.

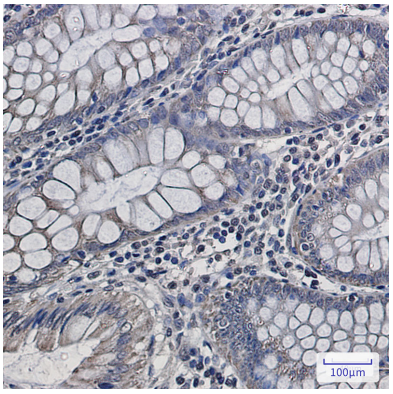


Immunocytochemistry analysis of RISP(green) in Hela using RISP antibody,and DAPI(blue)



Immunohistochemistry analysis of paraffin-embedded Human colon cancer using UQCRFS1/RISP antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.





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