

Anti-RISP Antibody

Catalog # AP96109

Product Information

Application	WB, FC, IF/IC
Primary Accession	P47985
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	29668

Additional Information

Gene ID	7386
Other Names	Cytochrome b-c1 complex subunit Rieske, mitochondrial; Complex III subunit 5; Cytochrome b-c1 complex subunit 5; Rieske iron-sulfur protein; RISP; Ubiquinol-cytochrome c reductase iron-sulfur subunit
Target/Specificity	Recombinant fusion protein of human RISP expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200) IF/IC~~N/A
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

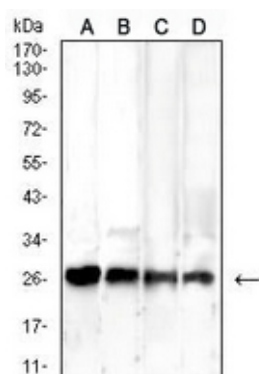
Name	UQCRRS1 (HGNC:12587)
Function	[Cytochrome b-c1 complex subunit Rieske, mitochondrial]: Component of the ubiquinol-cytochrome c oxidoreductase, a multisubunit transmembrane complex that is part of the mitochondrial electron transport chain which drives oxidative phosphorylation (PubMed: 31883641). 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 UQCRF51 is the penultimate step in complex III assembly (PubMed:[28673544](#)).

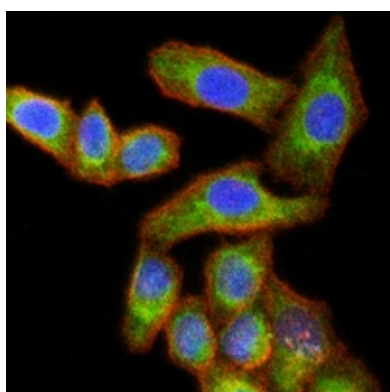
Cellular Location

Mitochondrion inner membrane; Single-pass membrane protein {ECO:0000250|UniProtKB:Q5ZLR5}

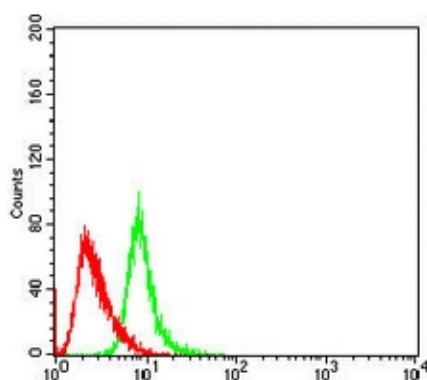
Images



Western blot analysis of RISP expression in A549 (A), HeLa (B), Raji (C), HepG2 (D) whole cell lysates. (Predicted band size: 30 kDa; Observed band size: 26 kDa)



Immunofluorescent analysis of RISP staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



Flow cytometric analysis of HeLa cells using Anti-RISP Antibody (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.