

## UQCRFS1 Rabbit pAb

CatalogNo: YN5802

### | Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB

#### MW

- 30kD (Calculated)

#### Isotype

- IgG

### | Recommended Dilution Ratios

WB 1:500-2000

### | Storage

#### Storage\*

-15°C to -25°C/1 year(Do not lower than -25°C)

#### Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### | Basic Information

#### Clonality

Polyclonal

### | Immunogen Information

#### Immunogen

Synthesized peptide derived from human UQCRFS1

#### Specificity

This antibody detects endogenous levels of UQCRFS1 at Human, Mouse, Rat

### | Target Information

#### Gene name

UQCRFS1

**Protein Name** 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) [Cleaved into: Cytochrome b-c1 complex subunit 11 (Complex III subunit IX) (Ubiquinol-cytochrome c reductase 8 kDa protein)]

| Organism | Gene ID                  | UniProt ID               |
|----------|--------------------------|--------------------------|
| Human    | <a href="#">7386</a> ;   | <a href="#">P47985</a> ; |
| Mouse    | <a href="#">66694</a> ;  | <a href="#">Q9CR68</a> ; |
| Rat      | <a href="#">291103</a> ; | <a href="#">P20788</a> ; |

**Cellular Localization** Mitochondrion inner membrane ; Single-pass membrane protein .

**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 . 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 . ; [Cytochrome b-c1 complex subunit 9]: Component of the ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII). UQCRFS1 undergoes proteolytic processing once it is incorporated in the complex III dimer. One of the fragments, called subunit 9, corresponds to its mitochondrial targeting sequence (MTS). The proteolytic processing is necessary for the correct insertion of UQCRFS1 in the complex III dimer, but the persistence of UQCRFS1-derived fragments may prevent newly imported UQCRFS1 to be processed and assembled into complex III and is detrimental for the complex III structure and function.

## Validation Data

## Contact information

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