

CYC1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP5338b

Product Information

Application WB, IHC-P, FC, E

Primary Accession P08574

Other Accession O9D0M3, NP 001907.2

Reactivity Human **Predicted** Mouse Host Rabbit Clonality Polyclonal Isotype Rabbit IgG **Clone Names** RB26833 **Calculated MW** 35422 259-287 **Antigen Region**

Additional Information

Gene ID 1537

Other Names Cytochrome c1, heme protein, mitochondrial, Complex III subunit 4, Complex

III subunit IV, Cytochrome b-c1 complex subunit 4, Ubiquinol-cytochrome-c

reductase complex cytochrome c1 subunit, Cytochrome c-1, CYC1

Target/Specificity This CYC1 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 259-287 amino acids from the

C-terminal region of human CYC1.

Dilution WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 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 CYC1 Antibody (C-term) is for research use only and not for use in diagnostic

or therapeutic procedures.

Protein Information

Name CYC1

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 guinol. 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. Cytochrome c1 is a catalytic core subunit containing a c-type heme. It transfers electrons from the [2Fe-2S] iron-sulfur cluster of the Rieske protein to cytochrome c.

Cellular Location

Mitochondrion inner membrane {ECO:0000250 | UniProtKB:P07143}; Single-pass membrane protein {ECO:0000250 | UniProtKB:P07143}

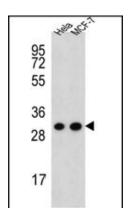
Background

This is the heme-containing component of the cytochrome b-c1 complex, which accepts electrons from Rieske protein and transfers electrons to cytochrome c in the mitochondrial respiratory chain.

References

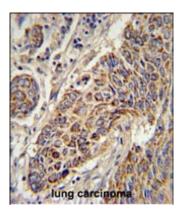
Cummings, C., et al. Apoptosis 11(7):1121-1129(2006) Wen, J.J., et al. Free Radic. Biol. Med. 37(12):2072-2081(2004) An, J., et al. J. Biol. Chem. 279(18):19133-19140(2004)

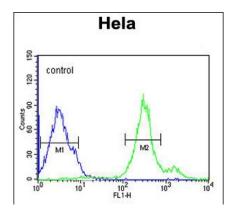
Images



CYC1 Antibody (C-term) (Cat. #AP5338b) western blot analysis in Hela,MCF-7 cell line lysates (35ug/lane). This demonstrates the CYC1 antibody detected the CYC1 protein (arrow).

CYC1 Antibody (C-term) (Cat. #AP5338b) immunohistochemistry analysis in formalin fixed and paraffin embedded human lung carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CYC1 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.





CYC1 Antibody (C-term) (Cat. #AP5338b) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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