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CYC1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20574c

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	P08574
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB48502
Calculated MW	35422

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 a rabbit immunized with a KLH conjugated synthetic peptide between 142-176 amino acids from the Central region of human CYC1.
Dilution	WB~~1:1000 IF~~1:25 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
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 (Center) 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 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. 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}

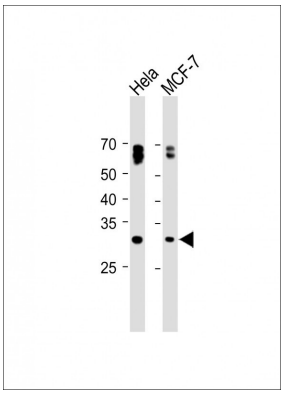
Background

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

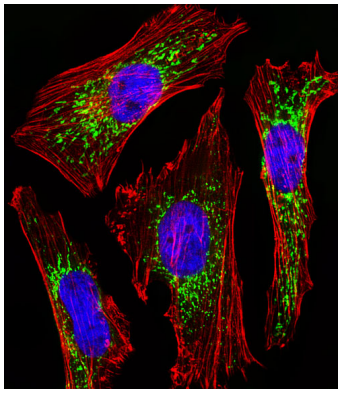
Nishikimi M.,et al.Nucleic Acids Res. 16:3577-3577(1988).
Suzuki H.,et al.J. Biol. Chem. 264:1368-1374(1989).
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Nusbaum C.,et al.Nature 439:331-335(2006).

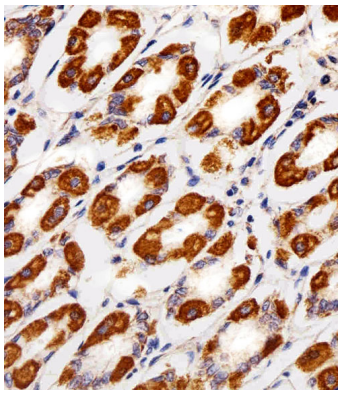
Images



All lanes : Anti-CYC1 Antibody (Center) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 30kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Fluorescent image of Hela cells stained with CYC1 Antibody (Center)(Cat#AP20574c). AP20574c was diluted at 1:25 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). DAPI was used to stain the cell nuclear (blue). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).





Immunohistochemical analysis of paraffin-embedded H. stomach section using CYC1 Antibody (Center)(C-term)(Cat#AP20574c). AP20574c was diluted at 1:25 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.

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