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CYC1 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5042

Product Information

Application	IHC-P, IF, WB
Primary Accession	P08574
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	35422
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	1537
Antigen Region	142-176
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
Dilution	IHC-P~~1:100~500 IF~~1:25 WB~~1:1000
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.
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 (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}

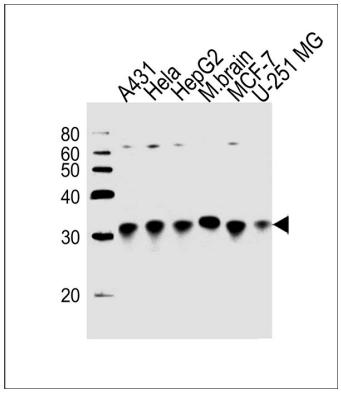
Background

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

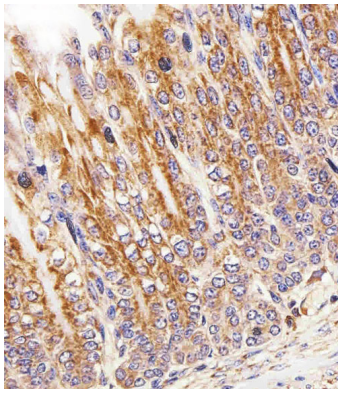
Nishikimi M.,et al.Nucleic Acids Res. 16:3577-3577(1988).
Suzuki H.,et al.J. Biol. Chem. 264:1368-1374(1989).
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Nusbaum C.,et al.Nature 439:331-335(2006).

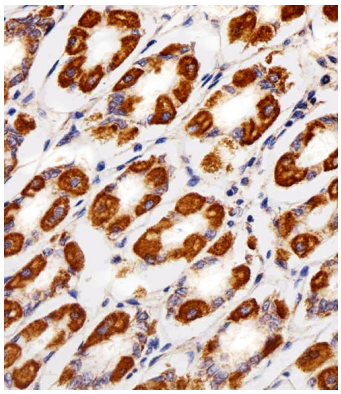
Images



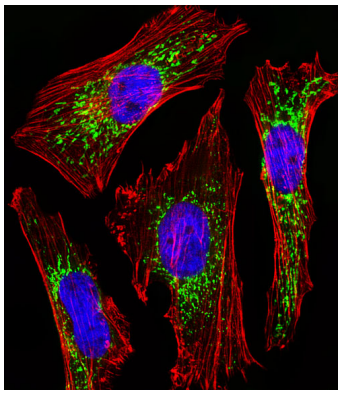
Western blot analysis of lysates from A431, Hela, HepG2 cell line, mouse brain tissue and MCF-7, U-251 MG cell line (from left to right), using CYC1 Antibody (Center)(Cat. #AW5042). AW5042 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

Immunohistochemical analysis of paraffin-embedded M. stomach section using CYC1 Antibody (Center)(Cat#AW5042). AW5042 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.

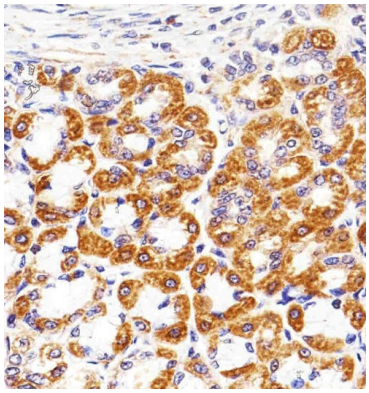




Immunohistochemical analysis of paraffin-embedded H. stomach section using CYC1 Antibody (Center)(C-term)(Cat#AW5042). AW5042 was diluted at 1:25 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Fluorescent image of Hela cells stained with CYC1 Antibody (Center)(Cat#AW5042). AW5042 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 R. stomach section using CYC1 Antibody (Center)(Cat#AW5042). AW5042 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.