

Basic Information

Product Name	Anti-COX4I1 Antibody	
Gene Name	COX4I1	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG2b	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human COX IV recombinant protein (Position: Q59-K169).	
Purification	Immunogen affinity purified.	
Observed MW	17 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	(Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Cytochrome c oxidase subunit 4 isoform 1, mitochondrial is an enzyme that in humans is encoded by the COX4I1 gene. Cytochrome c oxidase (COX) is the terminal enzyme of the mitochondrial respiratory chain. It is a multi-subunit enzyme complex that couples the transfer of electrons from cytochrome c to molecular oxygen and contributes to a proton electrochemical gradient across the inner mitochondrial membrane. The complex consists of 13 mitochondrial- and nuclear-encoded subunits. The mitochondrially-encoded subunits perform the electron transfer and proton pumping activities. The functions of the nuclear-encoded subunits are unknown but they may play a role in the regulation and assembly of the complex. This gene encodes the nuclear-encoded subunit IV isoform 1 of the human mitochondrial respiratory chain enzyme. It is located at the 3' of the NOC4 (neighbor of COX4) gene in a head-to-head orientation, and shares a promoter with it. Pseudogenes related to this gene are located on chromosomes 13 and 14.

Reference

Anti-COX4I1 Antibody 被引用在2文献中。

Selected Validation Data

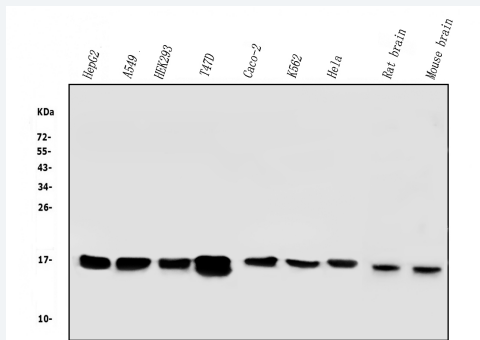


Figure 1. Western blot analysis of anti-COX4I1 antibody (M05442-1). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,
Lane 2: human A549 whole cell lysates,
Lane 3: human HEK293 whole cell lysates,
Lane 4: human T47D whole cell lysates,
Lane 5: human Caco-2 whole cell lysates,
Lane 6: human K562 whole cell lysates,
Lane 7: human HeLa whole cell lysates,
Lane 8: rat brain tissue lysates,
Lane 9: mouse brain tissue lysates.

Use mouse anti-COX4I1 1:1000, probed with a goat anti-mouse IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001). A specific band was detected for COX4I1 at approximately 17kD. The expected band size for COX4I1 is at 20kD.

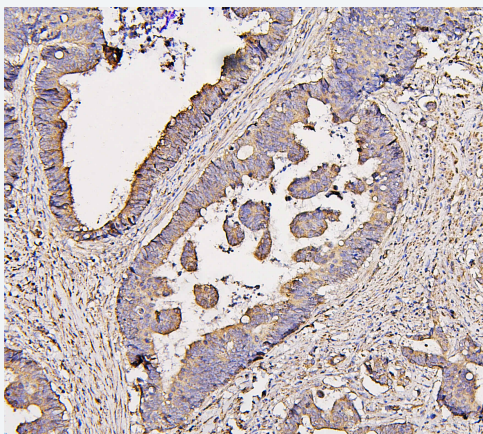


Figure 2. IHC analysis using anti-COX4I1 antibody (M05442-1), detected in paraffin-embedded section of human colon cancer tissue. Peroxidase Conjugated goat anti-mouse IgG was used as secondary antibody. The tissue section was developed using HRP Conjugated mouse IgG Super Vision Assay Kit (Catalog#SV0001) with DAB as the chromogen.

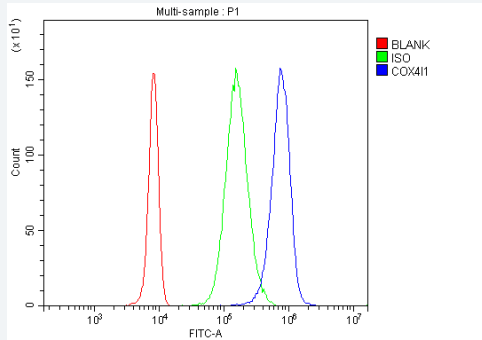


Figure 5. Flow Cytometry analysis of U937 cells using anti-COX4I1 antibody (M05442-1).

Overlay histogram showing U937 cells stained with M05442-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-COX4I1 Antibody (M05442-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.