

## Basic Information

<b>Product Name</b>	Anti-COX4I1 Antibody	
<b>Gene Name</b>	COX4I1	
<b>Source</b>	Rabbit	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human,mouse,rat	
<b>Tested Application</b>	FCM, WB, IHC, ICC/IF	
<b>Contents</b>	500 ug/ml antibody with PBS , 0.02% NaN <sub>3</sub> , 1 mg BSA and 50% glycerol.	
<b>Immunogen</b>	E. coli-derived human COX IV recombinant protein (Position: Q59-K169).	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	17KD	
<b>Dilution Ratios</b>	Western blot (WB): Immunohistochemistry in paraffin section (IHC): ELISA: Immunocytochemistry/Immunofluorescence (ICC/IF): Flow cytometry (FCM): (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.	1:500-2000 1:50-400 1:100-1000 1:50-400 1-3 µg/1x10 <sup>6</sup> cells

## 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.

## Selected Validation Data

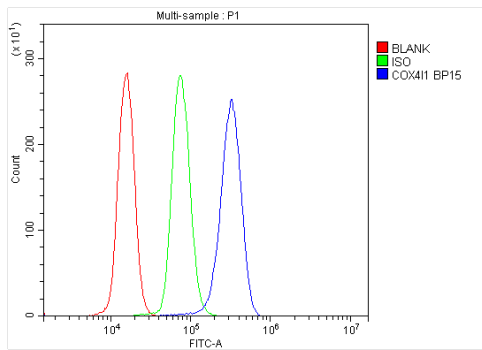


Figure 12. Flow cytometry analysis of U937 cell( $1 \times 10^6$ ) DyLight 488 conjugated goat anti-rabbit IgG(blue) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG DyLight 488. Unlabelled sample (Red line).

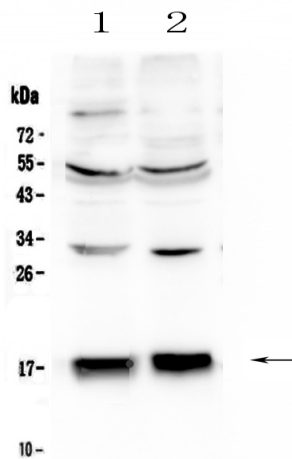


Figure 1. Western blot analysis of COX IV using anti-COX IV antibody (A05442-1). Lane 1: human HepG2 whole cell lysates, Lane 2: human SGC-7901 whole cell lysates. anti-COX IV antigen affinity purified polyclonal antibody (Catalog # A05442-1) probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for COX IV at approximately 17-20 kDa. The expected band size for COX IV is at 20 kDa.

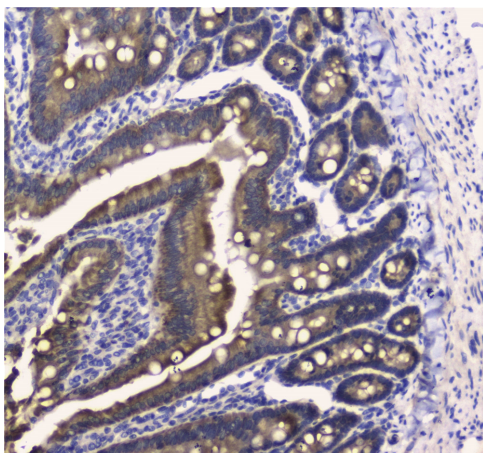


Figure 3. IHC analysis of COX IV using anti-COX IV antibody (A05442-1). COX IV was detected in paraffin-embedded section of mouse small intestine tissue. rabbit anti-COX IV Antibody (A05442-1). Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Product datasheet

## Anti-COX4I1 Antibody

Catalog Number: **A05442-1**

# BOSTER

antibody and ELISA experts

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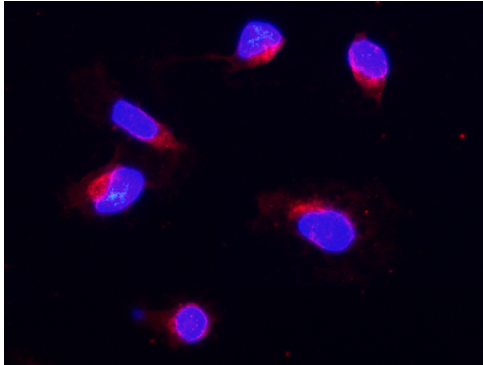


Figure 11. ICC analysis of anti-COX4I1 antibody (A05442-1).was detected in immunocytochemical section of U2OS cells. Cells were stained using the Dylight594-conjugated Anti-rabbit IgG Secondary Antibody (red)(Catalog#BA1142) and counterstained with DAPI (blue).