

## 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>	WB, IHC
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg BSA and 50% glycerol.
<b>Immunogen</b>	A synthetic peptide corresponding to a sequence of COX IV/COX4I1 (EVAHVKHLASQKALKEK).
<b>concentration</b>	500 ug/ml
<b>Purification</b>	Immunogen affinity purified.
<b>Observed MW</b>	17KD
<b>Dilution Ratios</b>	Western blot(WB): 1:500-2000 Immunohistochemistry in paraffin section (IHC): 1:50-400 (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.

## Selected Validation Data

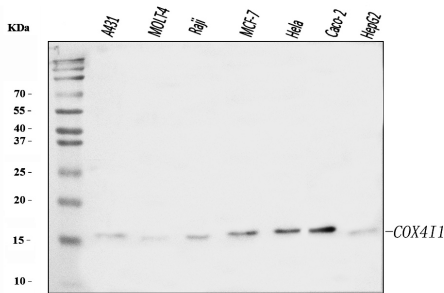


Figure 1. Western blot analysis of anti-COX4I1 Antibody (A05442-2). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: A431 whole cell lysates,  
Lane 2: MOLT4 whole cell lysates,  
Lane 3:Raji whole cell lysates,  
Lane 4: MCF-7 whole cell lysates,  
Lane 5: HELA whole cell lysates,  
Lane 6: CACO-2 whole cell lysates,  
Lane 7: HEPG2 whole cell lysates.

Use rabbit anti-COX4I1 1:1000, 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 COX4I1 at approximately 17KD. The expected band size for COX4I1 is at 20KD.