

Basic Information

Product Name	Anti-COX4I1 Antibody (Clone#26C49)	
Gene Name	COX4I1	
Source	Rabbit	
Clonality	Monoclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, IP, FCM	
Contents	500 ug/ml; Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide, 0.4-0.5 mg/ml BSA and 50% glycerol.	
Immunogen	A synthesized peptide derived from COX IV	
Concentration	500 ug/ml	
Purification	Affinity-chromatography	
Observed MW	17 kDa	
Dilution Ratios	Western blot (WB): Immunohistochemistry (IHC): Immunocytochemistry/Immunofluorescence (ICC/IF): ImmunoPrecipitation (IP): Flow Cytometry (FCM):	1:500-2000 1:50-200 1:50-200 1:50 1:50

Storage

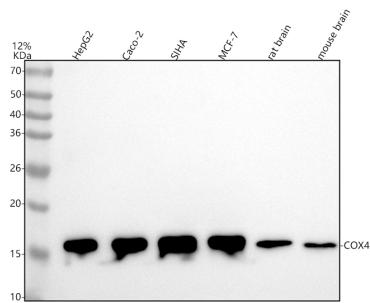
12 months from date of receipt, -20°C as supplied.

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.

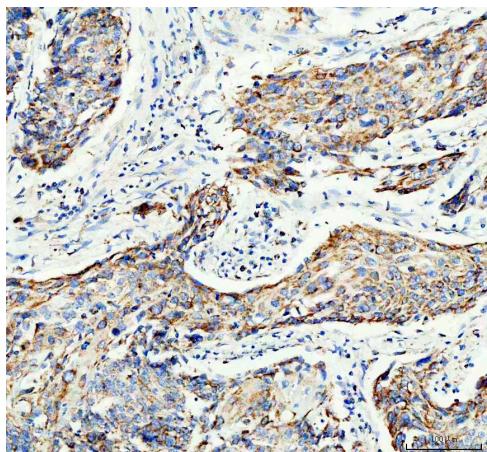
Selected Validation Data



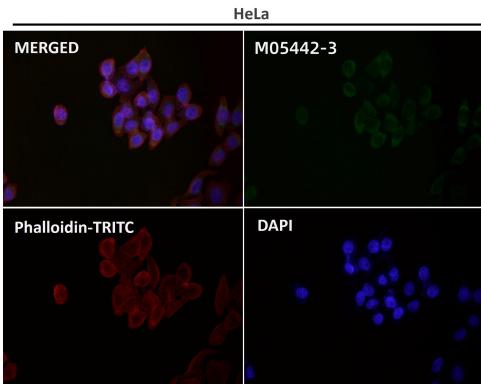
Western blot analysis of anti-COX4I1 antibody (M05442-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,
Lane 2: human Caco-2 whole cell lysates,
Lane 3: human SiHa whole cell lysates,
Lane 4: human MCF-7 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-COX4I1 antigen affinity purified monoclonal antibody (M05442-3) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for COX4I1 at approximately 17 kDa. The expected band size for COX4I1 is at 20 kDa.



IHC analysis of COX4I1 using anti-COX4I1 antibody (M05442-3). COX4I1 was detected in a paraffin-embedded section of human cervical cancer tissue. The tissue section was incubated with rabbit anti-COX4I1 Antibody (M05442-3) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



Immunofluorescent analysis using the Antibody.