Product datasheet

# Anti-COX4I1 Antibody (Clone#4G11)

**Catalog Number: *M05442-1***

BOSTER®
antibody and ELISA experts
**BOSTER BIOLOGICAL TECHNOLOGY**
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
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## Basic Information

| | |
|---|---|
| **Product Name** | Anti-COX4I1 Antibody (Clone#4G11) |
| **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% NaN3, 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<br>Immunohistochemistry (IHC): 1:50-400<br>Flow Cytometry (Fixed): 1:50-200<br>(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℃ 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

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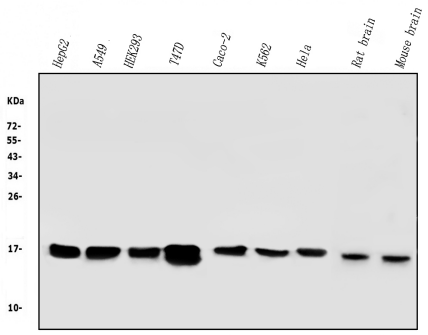
shares a promoter with it. Pseudogenes related to this gene are located on chromosomes 13 and 14.

## Reference

Anti-COX4I1 Antibody (Clone#4G11)被引用在4文献中。

## Selected Validation Data




Western blot analysis of COX4I1 using anti-COX4I1 antibody (M05442-1). 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 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.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-COX4I1 antigen affinity purified monoclonal antibody (M05442-1) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). 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.

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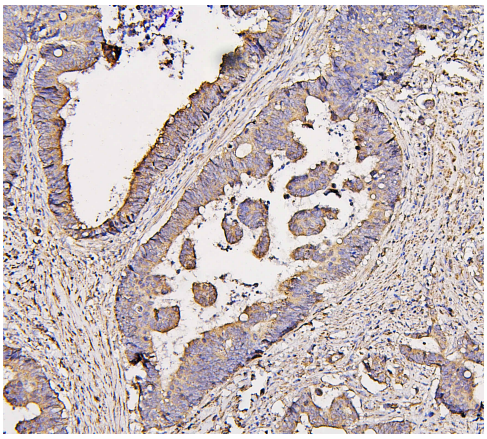
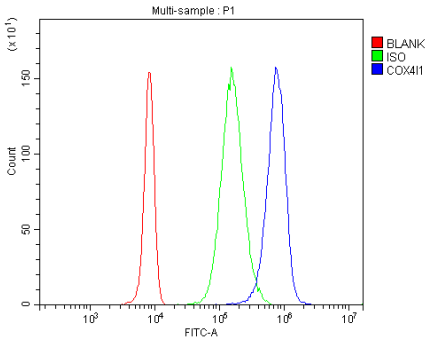


IHC analysis of COX4I1 using anti-COX4I1 antibody (M05442-1). COX4I1 was detected in a paraffin-embedded section of human colon cancer tissue. The tissue section was incubated with mouse anti-COX4I1 Antibody (M05442-1) at a dilution of 1:200 and developed using HRP Conjugated mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB (Catalog # AR1027) as the chromogen.




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. Fluoro488 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.