# Product datasheet Anti-MT-CO1 Antibody Catalog Number: BA2149-2



Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator, East Lake High-Tech Development Zone, Wuhan.

Web: www.boster.com Phone: 027-67845390/1/2 Email: boster@boster.com

Basic Information		
Product Name	Anti-MT-CO1 Antibody	
Gene Name	MT-CO1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF	
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human MTCO1.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	37 kDa	
Dilution Ratios	Western blot (WB): Immunohistochemistry (IHC): Immunocytochemistry/Immunofluorescence (ICC/IF): (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,ormins is required for the staining of formalin/paraffin sections determined by end user.	

#### **Storage**

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

#### **Background Information**

Cytochrome c oxidase subunit I(CO1 or MTCO1) is 1 of 3 mitochondrial DNA(mtDNA) encoded subunits(MTCO1, MTCO2, MTCO3) of respiratory Complex IV. Complex IV is located within the mitochondrial inner membrane and is the third and final enzyme of the electron transport chain of mitochondrial oxidative phosphorylation. It is composed of 13 polypeptides. Subunits I, II, and III(MTCO1, MTCO2, MTCO3) are encoded by mtDNA while subunits IV, Va, Vb, Vla, Vlb, Vlc, Vlla, Vllb, Vllc, and VllI are nuclear encoded. The cytochrome c oxidase family of enzymes have 4 redox centers, 2 hemes and 2 copper centers. In mitochondrial Complex IV, the 2 hemes are a and a3 and the 2 coppers are CuA and CuB. The 2 hemes and CuB are bound to subunit I. Acin-Perez et al.(2003) identified a cell line containing single and double missense mutations in the cytochrome c oxidase(COX) subunit I gene of mouse mitochondrial DNA. And they hypothesized that deleterious mutations can arise and become predominant; cultured cells can maintain several mtDNA haplotypes at stable frequencies; the respiratory chain has little spare COX capacity; and that the size of a cavity in the vicinity of val421 in MTCO1I of animal COX may affect the function of the

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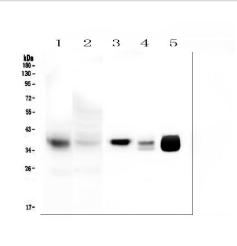
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enzyme.

#### Reference

Anti-MT-CO1 Antibody被引用在1文献中。

### **Selected Validation Data**



Western blot analysis of anti-MT-CO1 antibody (BA2149-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa mitochondria lysates at 20ug,

Lane 2: human HeLa whole cell lysates at 20ug,

Lane 3: human Caco-2 whole cell lysates at 50ug,

Lane 4: rat heart tissue lysates at 50ug.

Lane 5: mouse heart tissue lysates at 50ug.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-MT-CO1 antigen affinity purified polyclonal antibody (BA2149-2) 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 MT-CO1 at approximately 37 kDa. The expected band size for MT-CO1 is at 57 kDa.

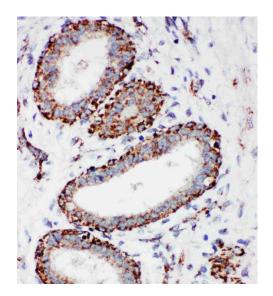
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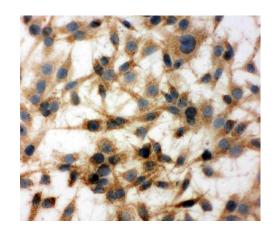
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IHC analysis of MT-CO1 using anti-MT-CO1 antibody (BA2149-2).
MT-CO1 was detected in a paraffin-embedded section of human mammary cancer tissue. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



ICC analysis of MT-CO1 using anti-MT-CO1 antibody (BA2149-2). MT-CO1 was detected in an immunocytochemical section of C6 cells. The section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.