

## COX4I1 Mitochondrial Loading Control Antibody (5Z89)

### Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 17 kDa. Actual: 17 kDa.
Clone:	5Z89
Purification:	Protein G purified

### Applications

#### Verified Activity:

1. Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:500 overnight at 4°C, followed by a conjugated secondary for 20 min and DAB staining.
2. Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:400 overnight at 4°C, followed by a conjugated secondary for 20 min and DAB staining.
3. Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody for 90 minutes, and DAPI for nucleus staining.
4. Paraformaldehyde-fixed, paraffin embedded (Rat skeletal muscle); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (COX4) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Mouse IgG antibody for 90 minutes, and DAPI for nucleus staining.
5. Paraformaldehyde-fixed, paraffin embedded (rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
6. Paraformaldehyde-fixed, paraffin embedded (Human duodenum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.
7. Paraformaldehyde-fixed, paraffin embedded (Human heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen

peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

8. Paraformaldehyde-fixed, paraffin embedded (mouse heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

9. Paraformaldehyde-fixed, paraffin embedded (rat heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

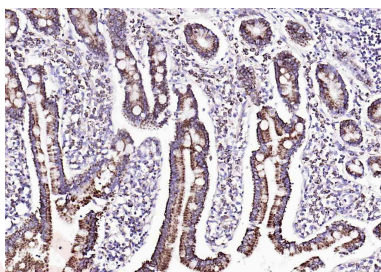
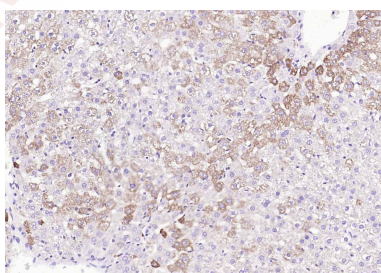
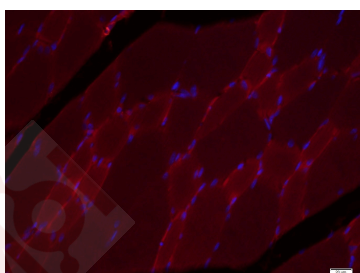
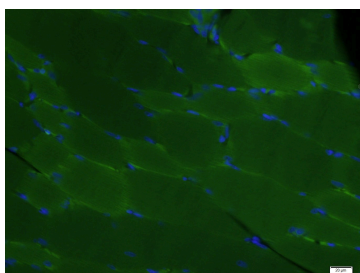
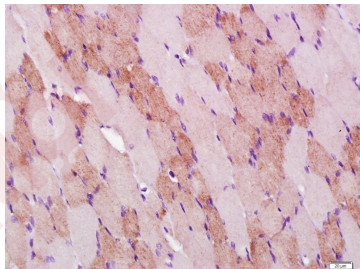
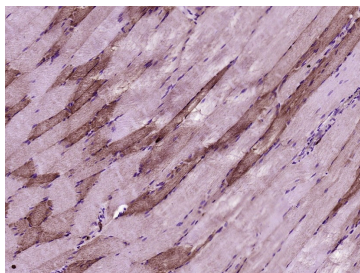
10. Paraformaldehyde-fixed, paraffin embedded (human heart); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

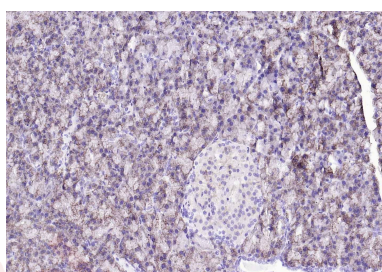
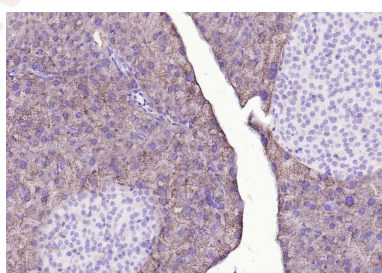
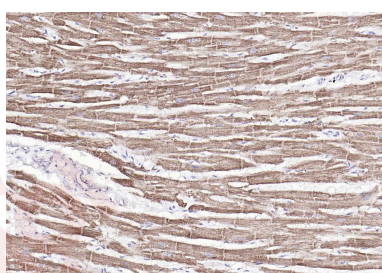
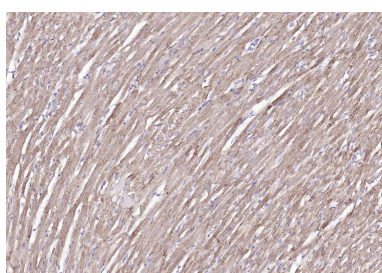
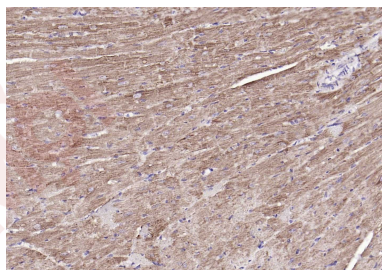
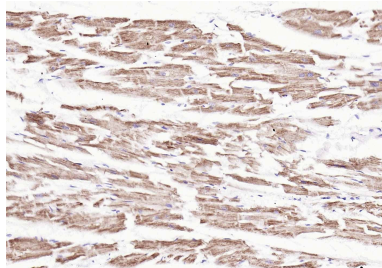
11. Paraformaldehyde-fixed, paraffin embedded (mouse pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

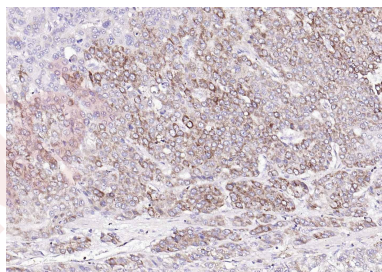
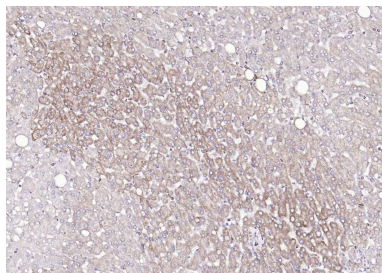
12. Paraformaldehyde-fixed, paraffin embedded (rat pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

13. Paraformaldehyde-fixed, paraffin embedded (human liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.

14. Paraformaldehyde-fixed, paraffin embedded (human liver carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30 min; Incubation with (COX4I1 (Mitochondrial Loading Control)) Monoclonal Antibody, Unconjugated (TMAB-00473) at 1:100 overnight at 4°C, followed by operating according to SP Kit (Mouse) instructions and DAB staining.







Application: IF,IHC-Fr,IHC-P,WB

Recommended IF=1:200-800; IHC-Fr=1:200-800; IHC-P=1:200-800; WB=1:500-2000

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein: human COX4

Antigen Species: Human

Gene ID: 1327

Uniprot ID: P13073

Synonyms: mitochondrial;Cytochrome c oxidase polypeptide IV;COX4I1;Cytochrome c oxidase subunit IV isoform 1 (COX IV-1);Cytochrome c oxidase subunit 4 isoform 1, mitochondrial;COX4

Biology Area: Integration of energy metabolism,COX IV - Mitochondrial,Integration of energy,Mitochondrial markers,Complex IV,Mitochondrial,Mitochondria

### Research Background

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. [provided by RefSeq, Jul 2008]

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