

Anti-COX IV Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

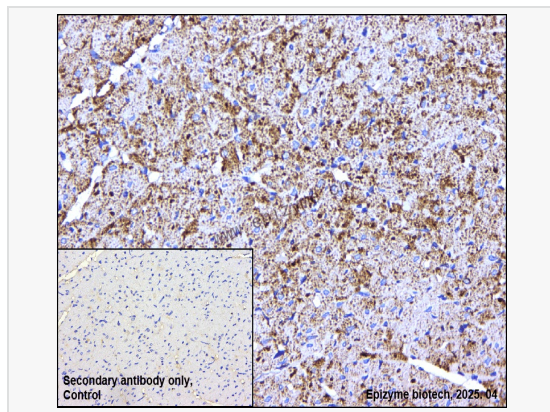
Catalog # R015500

Product Information

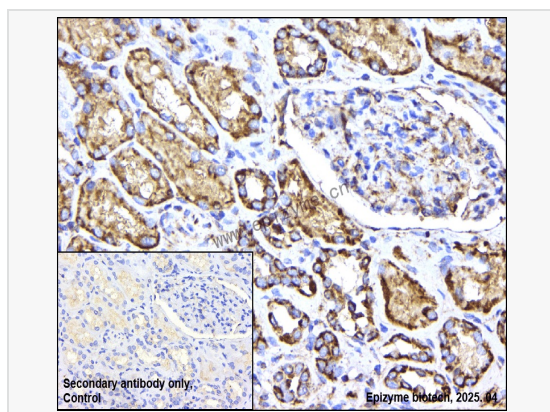
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|-------------|---|
| Application | WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA |
| Reactivity | Human, Mouse, Rat |
| Dilution | WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200 |
| Host | Rabbit |
| Clonality | Monoclonal |
| Clone No. | 81F46G51 |
| Isotype | IgG |
| Label | Unconjugated |
| Immunogen | A synthesized peptide derived from COX IV |
| Format | Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3. |
| Storage | Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage. |
| Precautions | Anti-COX IV Rabbit mAb [81F46G51] is for research use only and not for use in diagnostic or therapeutic procedures. |

Protein Information

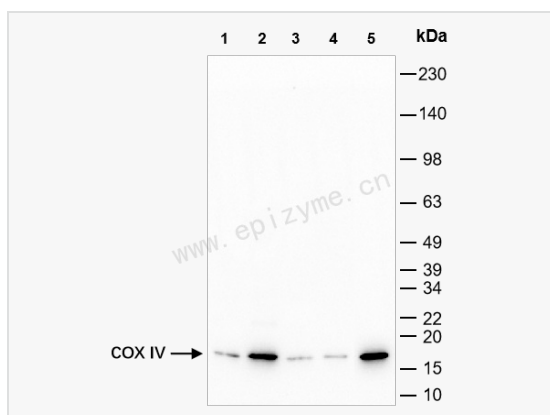
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| Synonyms | AL024441; COX 4; COX IV 1; COX IV; COX IV-1; Cox4; COX41_HUMAN; Cox4a; COX4B; COX411; COX4I2; COX4L2; COXIV; Cytochrome c oxidase polypeptide IV; Cytochrome c oxidase subunit 4 isoform 1 mitochondrial; Cytochrome c oxidase subunit 4 isoform 1, mitochondrial; Cytochrome C Oxidase subunit IV; Cytochrome c oxidase subunit IV isoform 1; Cytochrome c oxidase subunit IV isoform 2 (lung); Cytochrome c oxydase subunit 4; dJ857M17.2; MGC105470; MGC72016. |
| Calculated MW | Calculated MW: 20 kDa; Observed MW: 17 kDa |
| Uniprot ID | P13073 |
| Gene ID | 1327 |
| 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. Pseudogenes related to this gene are located on chromosomes 13 and 14. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jan 2016]. |
| Cellular Location | Mitochondrion inner membrane. |



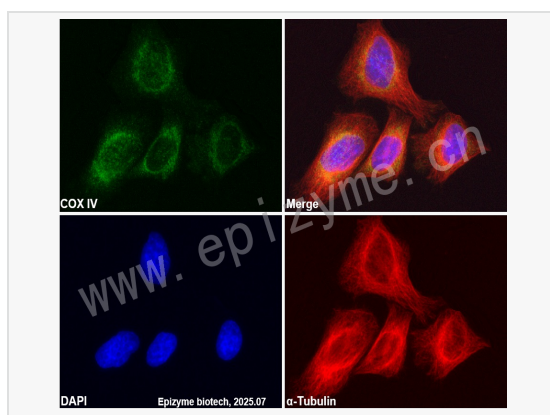
Immunohistochemistry - Anti-COX IV Rabbit mAb [81F46G51]
 Sample: Paraformaldehyde-fixed, paraffin embedded rat heart tissue
 Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
 Primary antibody: R015500 at 1:200 dilution
 Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
 DAB was used as the chromogen.
 Counter stained with hematoxylin.
 Positive/negative staining were presented.
 Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-COX IV Rabbit mAb [81F46G51]
 Sample: Paraformaldehyde-fixed, paraffin embedded human renal carcinoma tissue
 Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
 Primary antibody: R015500 at 1:200 dilution
 Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
 DAB was used as the chromogen.
 Counter stained with hematoxylin.
 Positive/negative staining were presented.
 Only the secondary antibody was used as the negative control.



Western Blot - Anti-COX IV Rabbit mAb [81F46G51]
 All lanes: R015500 at 1:1,000 dilution
 Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates
 Lane 2: Huh1 (Human hepatocarcinoma epithelial cell) whole cell lysates
 Lane 3: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates
 Lane 4: Mouse liver whole tissue lysates
 Lane 5: Rat heart whole tissue lysates
 Lysates/proteins at 10 µg per lane.
 Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution
 Predicted band size: 20 kDa
 Observed band size: 17 kDa
 Developed using the ECL technique (Cat. No. SQ201).



Immunofluorescence - Anti-COX IV Rabbit mAb [81F46G51]
 Sample: HeLa cells
 The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.
 Primary antibodies: R015500 at 1:100 dilution and α -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution
 Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)
 Nuclei were stained with DAPI (shown in blue).