

KD-Validated Anti-COX IV Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1216**Specification****KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	P13073
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 20 kDa, observed, 20 kDa kDa
Gene Name	COX4I1
Aliases	COX4I1; Cytochrome C Oxidase Subunit 4I1; COXIV-1; COX4-1; COXIV; COX4; Cytochrome C Oxidase Subunit 4 Isoform 1, Mitochondrial; Cytochrome C Oxidase Subunit IV Isoform 1; Cytochrome C Oxidase Polypeptide IV; Cytochrome C Oxidase Subunit IV; COX IV-1; MC4DN16
Immunogen	A synthesized peptide derived from human COX IV

KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Additional Information

Gene ID	1327
Other Names	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial, Cytochrome c oxidase polypeptide IV, Cytochrome c oxidase subunit IV isoform 1, COX IV-1, COX4I1 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=2265)

KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Protein Information**Name** COX4I1 ([HGNC:2265](#))**Function**

Component of the cytochrome c oxidase, the last enzyme in the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol- cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. Cytochrome c oxidase is the component of the respiratory chain that catalyzes the reduction of oxygen to water. Electrons originating from reduced cytochrome c in the intermembrane space (IMS) are transferred via the dinuclear copper A center (CU(A)) of subunit 2 and heme A of subunit 1 to the active site in subunit 1, a binuclear center (BNC) formed by heme A3 and copper B (CU(B)). The BNC reduces molecular oxygen to 2 water molecules using 4

electrons from cytochrome c in the IMS and 4 protons from the mitochondrial matrix.

Cellular Location

Mitochondrion inner membrane; Single-pass membrane protein

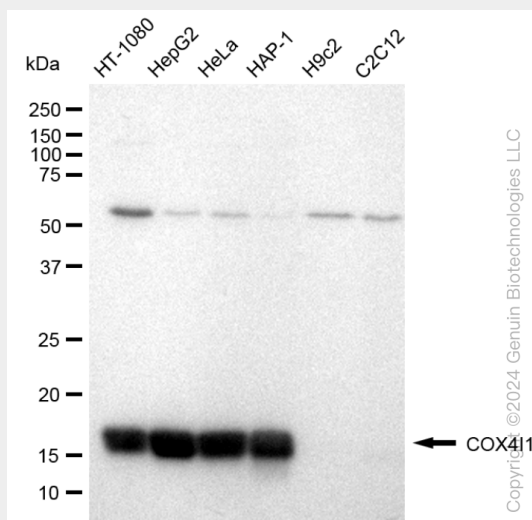
Tissue Location

Ubiquitous.

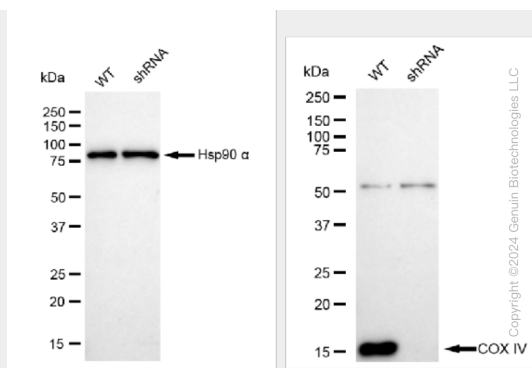
KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

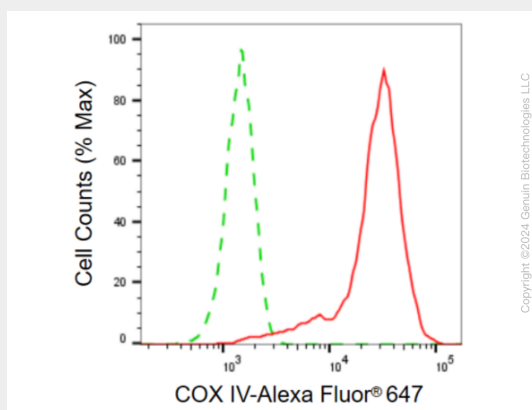
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Images

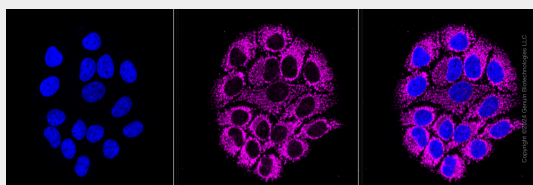
Western blotting analysis using anti-COX IV antibody (Cat#61431). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-COX IV antibody (Cat#61431, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (Cat#201, 1:50,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).



Western blotting analysis using anti-COX IV antibody (Cat#61431). COX IV expression in wild type (WT) and COX IV shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-COX IV antibody (Cat#61431,1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (Cat#201,1:50,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).



Flow cytometric analysis of COX IV expression in HepG2 cells using COX IV antibody (Cat#61431,1:2,000). Green, isotype control; red, COX IV.



Immunocytochemical staining of HepG2 cells with COX IV antibody (Cat#61431, 1:1,000). Nuclei were stained blue with DAPI; COX IV was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.