

**KD-Validated Anti-COX IV Rabbit Monoclonal Antibody**  
**Rabbit monoclonal antibody**  
**Catalog # AGI2364****Specification****KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC
Primary Accession	<a href="#">P13073</a>
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 20 kDa ; Observed, 17 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 ( <a href="http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=2265" target="_blank">http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=2265</a> )

**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

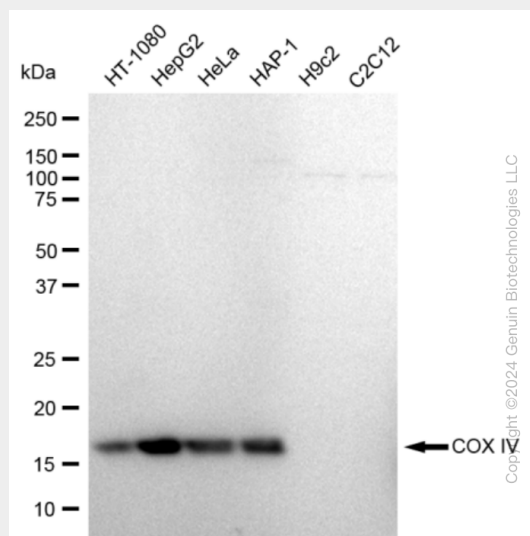
**Tissue Location**

Ubiquitous.

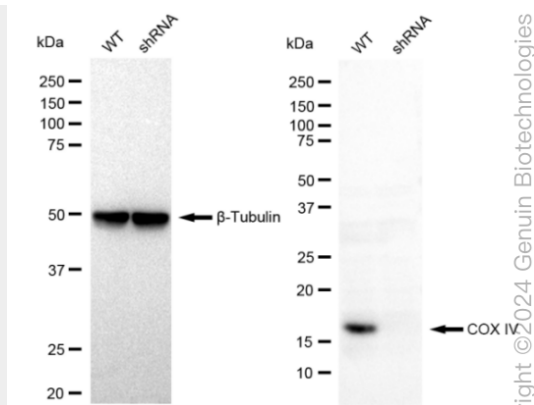
**KD-Validated Anti-COX IV Rabbit Monoclonal Antibody - Protocols**

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

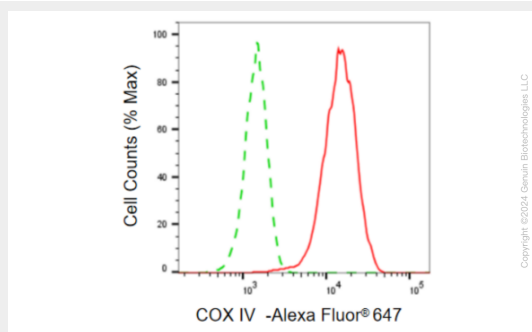
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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

Western blotting analysis using anti-COX IV antibody (Cat#69431). 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#69431, 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-COX4I1 antibody (Cat#69431). COX4I1 expression in wild type (WT) and COX4I1 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-COX4I1 antibody (Cat#69431, 1:2,500) and HRP-conjugated goat anti-rabbit secondary antibody (Cat#201, 1:20,000) respectively. Image was developed using FeQ™ ECL Substrate Kit (Cat#226).



Flow cytometric analysis of COX IV expression in HepG2 cells using anti-COX IV antibody (Cat#69431, 1:2,000). Green, isotype control; red, COX IV.