

Rabbit COX IV Polyclonal Antibody | anti-COXIV antibody

Phospho-COX IV (Ser58) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329292	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

COX IV; Polyclonal Antibody; Phospho-COX IV (Ser58) Antibody; AL024441; COX 4; COX IV 1; COX IV-1; Cox4; COX41_HUMAN; Cox4a; COX4B; COX4I1; 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; anti-COXIV antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-COX IV (Ser58) Antibody detects endogenous levels of COX IV only when phosphorylated at Ser58. Tissue Specificity: Ubiquitous.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-COXIV antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human COX IV around the phosphorylation site of Ser58.
Conjugation	Unconjugated
Fragment	Fab fragment
Subunit Structure	Component of the cytochrome c oxidase (complex IV, CIV), a multisubunit enzyme composed of 14 subunits. The complex is composed of a catalytic core of 3 subunits MT-CO1, MT-CO2 and MT-CO3, encoded in the mitochondrial DNA, and 11 supernumerary subunits COX4I1 (or COX4I2), COX5A, COX5B, COX6A1 (or COX6A2), COX6B1 (or COX6B2), COX6C, COX7A2 (or COX7A1), COX7B, COX7C, COX8A and NDUFA4, which are encoded in the nuclear genome. The complex exists as a monomer or a dimer and forms supercomplexes (SCs) in the inner mitochondrial membrane with NADH-ubiquinone oxidoreductase (complex I, CI) and ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII), resulting in different assemblies (supercomplex SCI (1)III (2)IV (1) and megacomplex MCI (2)III (2)IV (2)). Interacts with AFG1L. Interacts with PHB2; the interaction decreases in absence of SPHK2 (By similarity).
Similarity	Belongs to the cytochrome c oxidase IV family.
Subcellular Location	Mitochondrion inner membrane>Single-pass membrane protein.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI (blue).



IHC (Immunohistochemistry)

At 1/100 staining Mouse heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

Staining Rat heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from Rat lung, using Phospho-COX IV (Ser58) Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-COXIV antibody

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.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4502981
NCBI GeneID	1327
NCBI Accession #	NP_001852.1
NCBI GenBank Nucleotide #	NM_001861.3
UniProt Accession #	P13073; Q6P666; B2R4J2; D3DUM7
Molecular Weight	19,577 Da
NCBI Official Full Name	cytochrome c oxidase subunit 4 isoform 1, mitochondrial
NCBI Official Synonym Full Names	cytochrome c oxidase subunit IV isoform 1
NCBI Official Symbol	COX4I1
NCBI Official Synonym Symbols	COX4; COXIV; COX4-1
NCBI Protein Information	cytochrome c oxidase subunit 4 isoform 1, mitochondrial; COX IV-1; cytochrome c oxidase polypeptide IV
UniProt Protein Name	Cytochrome c oxidase subunit 4 isoform 1, mitochondrial
UniProt Gene Name	COX4I1
UniProt Synonym Gene Names	COX4; COX IV-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/cox-iv-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/329292>