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Anti-COX19 Antibody

Catalog # AP54029

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q49B96
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10394

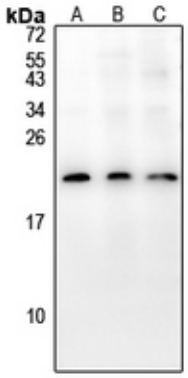
Additional Information

Gene ID	90639
Other Names	Cytochrome c oxidase assembly protein COX19; hCOX19
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human COX19. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IHC~~1/50 - 1/200 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

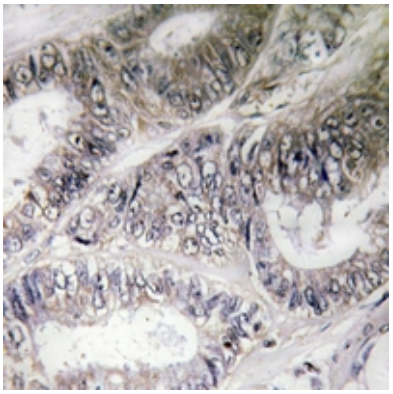
Protein Information

Name	COX19
Function	Assembly factor for cytochrome c oxidase (respiratory chain complex IV, CIV) (PubMed:35750769). Acts as a COX11 chaperone that supports COX11 copper coordination (PubMed:35750769). Also stimulates SCO2-mediated metalation of COX2 (PubMed:35750769). Required for the transduction of an SCO1-dependent redox signal from the mitochondrion to ATP7A to regulate cellular copper homeostasis (PubMed:23345593). In the absence of COX11, capable of stimulating copper delivery to the copper B site of COX1 (PubMed:35750769).
Cellular Location	Cytoplasm, cytosol Mitochondrion intermembrane space Mitochondrion. Note=Partitions between mitochondria and the cytosol in a copper-dependent manner. Enriched in the cytosol when intracellular copper concentrations are elevated
Tissue Location	Ubiquitously expressed. Highly expressed in skeletal muscle.

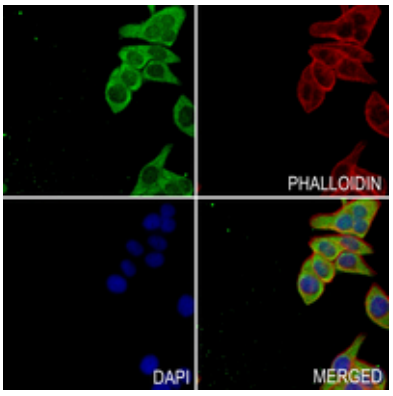
Images



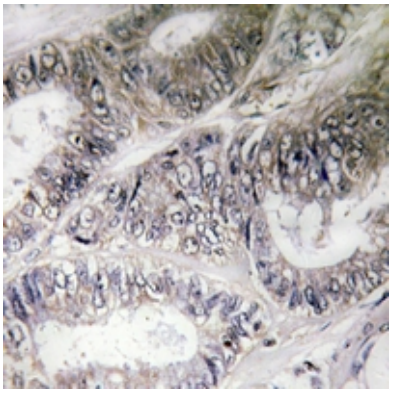
Western blot analysis of COX19 expression in A375 (A), EC9706 (B), HCT116 (C) whole cell lysates. (Predicted band size: 10 kD; Observed band size: 20 kD)



Immunohistochemical analysis of COX19 staining in human colon cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of COX19 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).



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