

COX17 Antibody / Cytochrome c oxidase copper chaperone Antibody (FY13566)

Catalog No.	Formulation	Size
FY13566	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

[Bulk quote request](#)

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q14061
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml ELISA : 0.1-0.5 ug/ml
Limitations	This COX17 Antibody / Cytochrome c oxidase copper chaperone Antibody is supplied exclusively for research use.

COX17 Antibody by IF in A549 cells. Immunofluorescence using Cytochrome c oxidase copper chaperone Antibody shows green punctate and perinuclear cytoplasmic staining surrounding blue DAPI-counterstained nuclei in A549 cells. The punctate cytoplasmic pattern is compatible with the reported mitochondrial localization of COX17, although organelle identity is not directly confirmed by this single-label experiment. Cells received enzyme-mediated antigen retrieval for 15 minutes and were blocked with 10% goat serum. Primary antibody was applied at 5 ug/mL overnight at 4oC, followed by a fluorescent goat anti-rabbit secondary antibody.

COX17 Antibody by IHC in human liver carcinoma. Immunohistochemistry of paraffin-embedded human liver carcinoma using Cytochrome c oxidase copper chaperone Antibody reveals prominent granular brown cytoplasmic staining among malignant hepatocyte-like cells. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 4oC, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

COX17 Antibody by WB in human LNCaP whole-cell lysate. Western blot analysis using Cytochrome c oxidase copper chaperone Antibody detects an immunoreactive band near 15 kDa in human LNCaP whole-cell lysate (lane 1). The calculated molecular weight is approximately 7 kDa. The approximately 15 kDa band is substantially larger than the calculated monomer; its identity has not been independently confirmed, and published studies identify COX17 as a 7 kDa protein. Reduced lysates containing 30 ug protein per lane were resolved by 12% SDS-PAGE and transferred to nitrocellulose. Following blocking with 5% nonfat milk, the membrane was incubated with primary antibody at 0.5 ug/mL overnight at 4oC and developed with an HRP-conjugated secondary antibody and chemiluminescence.

COX17 Antibody by IHC in human colon carcinoma. Immunohistochemistry of paraffin-embedded human colon carcinoma using Cytochrome c oxidase copper chaperone Antibody reveals intense brown cytoplasmic staining in tumor epithelial glands. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 2 ug/mL overnight at 4oC, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

COX17 Antibody by IHC in human liver carcinoma. Immunohistochemistry of paraffin-embedded human liver carcinoma using Cytochrome c oxidase copper chaperone Antibody reveals moderate granular brown cytoplasmic immunoreactivity in carcinoma cells. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 1:100 dilution overnight at 4oC, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

COX17 Antibody by IHC in human colon carcinoma. Immunohistochemistry of paraffin-embedded human colon carcinoma using Cytochrome c oxidase copper chaperone Antibody reveals brown cytoplasmic immunoreactivity in malignant epithelial glands. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 1:100 dilution overnight at 4oC, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

COX17 Antibody by IHC in mouse heart. Immunohistochemistry of paraffin-embedded mouse heart using Cytochrome c oxidase copper chaperone Antibody reveals brown staining distributed through cardiomyocyte cytoplasm. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 1:100 dilution overnight at 4oC, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

COX17 Antibody by IHC in rat heart. Immunohistochemistry of paraffin-embedded rat heart using Cytochrome c oxidase copper chaperone Antibody reveals brown cytoplasmic immunoreactivity in cardiac muscle fibers. Sections underwent heat-mediated antigen retrieval in EDTA buffer at pH 8.0 and blocking with 10% goat serum. Primary antibody was applied at 1:100 dilution overnight at 4oC, followed by HRP-conjugated secondary antibody and DAB chromogen. Hematoxylin counterstaining highlights tissue architecture and nuclei.

COX17 Antibody / Cytochrome c oxidase copper chaperone Antibody detects COX17, a small copper-binding protein that helps deliver copper to the machinery assembling cytochrome c oxidase, also known as complex IV of the mitochondrial respiratory chain. Complex IV transfers electrons from cytochrome c to molecular oxygen and contributes to the proton gradient used for ATP production. Its catalytic core contains copper centers that must be assembled correctly for normal activity. COX17 functions as part of the specialized copper-handling system that supplies this metal while limiting inappropriate reactions involving free copper ions.

COX17 is found in compartments associated with mitochondrial copper trafficking and interacts with downstream copper-delivery proteins, including SCO1 and SCO2, which participate in the maturation of the CuA center of cytochrome c oxidase. Copper binding involves conserved cysteine residues, and the oxidation state of these residues influences protein structure and interactions. The pathway is distinct from general cellular copper uptake: transport into the cell does not by itself ensure that copper reaches the appropriate mitochondrial assembly factors. COX17 thus links metal homeostasis with respiratory-chain biogenesis. The Cytochrome c oxidase copper chaperone Antibody designation refers to this same molecular target.

Because cytochrome c oxidase is essential for efficient aerobic energy production, disruption of its copper insertion machinery can compromise oxidative phosphorylation. Copper availability, mitochondrial protein import, and the activity of assembly factors all affect complex IV maturation. COX17 should not be confused with the COX1, COX2, or COX3 structural subunits of the enzyme; it is an accessory copper chaperone rather than a catalytic subunit. NSJ Bioreagents includes COX17 among mitochondrial biogenesis and respiratory-chain-associated targets. A COX17 Antibody provides a way to investigate the biological role of COX17 and the molecular processes associated with this target.

Explore related research targets in our [Metabolism Antibody / Metabolism Antibodies](#) collection.

Application Notes

The optimal working dilution of the COX17 Antibody / Cytochrome c oxidase copper chaperone Antibody should be determined empirically by the investigator.

Immunogen

The COX17 Antibody was generated using e. coli-derived human COX17 recombinant protein (amino acids M1-I63).

Storage

Once reconstituted, refrigerate the COX17 Antibody at 4°C for no longer than one month. For extended storage, freeze aliquots at -20°C for up to six months and avoid repeated freeze-thaw cycles.

Alternate Names

COX17 antibody, Cytochrome c oxidase copper chaperone antibody, cytochrome c oxidase copper chaperone COX17 antibody, COX 17 antibody, COX17 rabbit polyclonal antibody