SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-COX10 antibody

Catalog Number: SL23098R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	COX10
Immunogen:	KLH conjugated synthetic peptide derived from human COX10: 161-260/443
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Preservative: 15mM Sodium Azide, Constituents: 1% BSA, 1M PBS, pH 7.4 Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat)
Predicted MW.:	49kDa
Subcellular Location:	cytoplasmic Mitochondrion
Background:	Cytochrome c oxidase (COX), the terminal component of the mitochondrial respiratory chain, catalyzes the electron transfer from reduced cytochrome c to oxygen. This component is a heteromeric complex consisting of 3 catalytic subunits encoded by mitochondrial genes and multiple structural subunits encoded by nuclear genes. The mitochondrially-encoded subunits function in electron transfer, and the nuclear-encoded subunits may function in the regulation and assembly of the complex. This nuclear gene encodes heme A:farnesyltransferase, which is not a structural subunit but required for the expression of functional COX and functions in the maturation of the heme A prosthetic group of COX. This protein is predicted to contain 7-9 transmembrane domains localized in the mitochondrial inner membrane. A gene mutation, which results in the

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	substitution of a lysine for an asparagine (N204K), is identified to be responsible for cytochrome c oxidase deficiency. In addition, this gene is disrupted in patients with CMT1A (Charcot-Marie-Tooth type 1A) duplication and with HNPP (hereditary neuropathy with liability to pressure palsies) deletion. [provided by RefSeq, Jul 2008] **Function:** Converts protoheme IX and farnesyl diphosphate to heme O. **Subcellular Location:** Mitochondrion membrane; Multi-pass membrane protein. DISEASE: Mitochondrial complex IV deficiency (MT-C4D) [MIM:220110]: A disorder of the mitochondrial respiratory chain with heterogeneous clinical manifestations, ranging from isolated myopathy to severe multisystem disease affecting several tissues and organs. Features include hypertrophic cardiomyopathy, hepatomegaly and liver dysfunction, hypotonia, muscle weakness, exercise intolerance, developmental delay, delayed motor development and mental retardation. Some affected individuals manifest a fatal hypertrophic cardiomyopathy resulting in neonatal death. A subset of patients manifest Leigh syndrome. Note=The disease is caused by mutations affecting the gene represented in this entry. Leigh syndrome (LS) [MIM:256000]: An early-onset progressive neurodegenerative disorder characterized by the presence of focal, bilateral lesions in one or more areas of the central nervous system including the brainstem, thalamus, basal ganglia, cerebellum and spinal cord. Clinical features depend on which areas of the central nervous system are involved and include subacute onset of psychomotor retardation, hypotonia, ataxia, weakness, vision loss, eye movement abnormalities, seizures, and dysphagia. Note=The disease is caused by mutations affecting the gene represented in this entry. **Similarity:** Belongs to the UbiA prenyltransferase family. **Database links:** **Entrez Gene:** 417329 Chicken **Entrez Gene:** 511440 Cow **Entrez Gene:** 1352 Human **Entrez Gene:** 70383 Mouse **Entrez Gene:** 363617 Rat **Entrez Gene:** 553384 Zebrafish Omim: 602125 Human **SwissProt:** Q12887 Human **SwissProt:** Q8CFY5 Mouse **Unigene:** 462278 Human **Unigene:** 340211 Mouse

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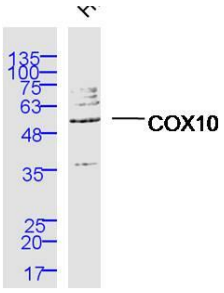
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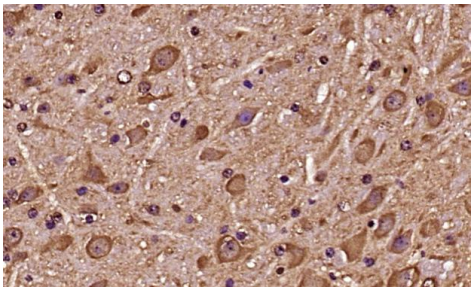
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[VALIDATION IMAGES]



Sample: HL-60 Cell (Human) Lysate at 40 ug
Primary: Anti-COX10 (SL23098R) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 49 kD
Observed band size: 50 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (COX10) Polyclonal Antibody, Unconjugated (SL23098R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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