SunLong Biotech Co.,LTD
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[Primary Antibody]

Mouse Anti-MTCO2 antibody

Catalog Number: SLM-60259M

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Mouse
Isotype:	IgG2a/Kappa
Clonality:	Monoclonal
Clone No.:	F10B1
Target:	MTCO2
Purification:	Affinity purified by Protein G
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-1000 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
Predicted MW.:	25kDa
Subcellular Location:	cytoplasmic The cell membrane
Background:	Contributes to cytochrome-c oxidase activity. Predicted to be involved in mitochondrial electron transport, cytochrome c to oxygen and positive regulation of vasoconstriction. Located in mitochondrial inner membrane. Part of respiratory chain complex IV. Biomarker of Huntington's disease and stomach cancer. [provided by Alliance of Genome Resources, Apr 2022] **Subcellular Location:** Mitochondrion inner membrane; Multi-pass membrane protein. **Database links:** **Entrez Gene:** 4513 Human **SwissProt:** P00403 Human A component of cytochrome c oxidase, it is the last enzyme in the Mitochondrion electron transport chain that drives oxidative phosphorylation.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	The respiratory chain includes three multi-subunit complexes: succinate dehydrogenase (Complex II, CII), ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, Complex III, CIII), and cytochrome c oxidase (Complex IV, CIV). They work together to transfer electrons derived from NADH and succinate to molecular oxygen, forming an electrochemical gradient across the inner membrane to drive transmembrane transport and ATP synthase. Cytochrome c oxidase is also a component of the respiratory chain and catalyzes the reduction of oxygen to water. In the intermembrane space (IMS), electrons from reduced cytochrome c are transferred through the binuclear copper A center (CU(A)) of subunit 2 and heme A of subunit 1 to the active site in subunit 1, which is a binuclear center (BNC) formed by heme A3 and copper B (CU(B)). The BNC uses 4 electrons from cytochrome c in the IMS and 4 protons from the Mitochondrion matrix to reduce molecular oxygen to 2 water molecules.

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