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KD-Validated Anti-COX5B Rabbit Monoclonal Antibody

Rabbit monoclonal Antibody
Catalog # AGI2200

Product Information

Application	WB, FC
Primary Accession	P10606
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB140
Calculated MW	13696
Gene Name	COX5B
Aliases	COX5B; Cytochrome C Oxidase Subunit 5B; Cytochrome C Oxidase Subunit 5B, Mitochondrial; Cytochrome C Oxidase Subunit Vb; Cytochrome C Oxidase Polypeptide VB, Mitochondrial; Epididymis Secretory Sperm Binding Protein; Cytochrome C Oxidase Polypeptide Vb; COXVB
Immunogen	A synthesized peptide derived from human COX5B

Additional Information

Gene ID	1329
Other Names	Cytochrome c oxidase subunit 5B, mitochondrial, Cytochrome c oxidase polypeptide Vb, COX5B

Protein Information

Name	COX5B
Function	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.

Cellular Location	Mitochondrion inner membrane; Peripheral membrane protein; Matrix side