10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-COX5B Rabbit Monoclonal Antibody

Rabbit monoclonal Antibody
Catalog # AGI2200

Specification

KD-Validated Anti-COX5B Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC**
Primary Accession	P10606
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 14 kDa, observed, 14 kDa KDa**
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**

KD-Validated Anti-COX5B Rabbit Monoclonal Antibody - Additional Information

Gene ID	**1329**

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

KD-Validated Anti-COX5B Rabbit Monoclonal Antibody - 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.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

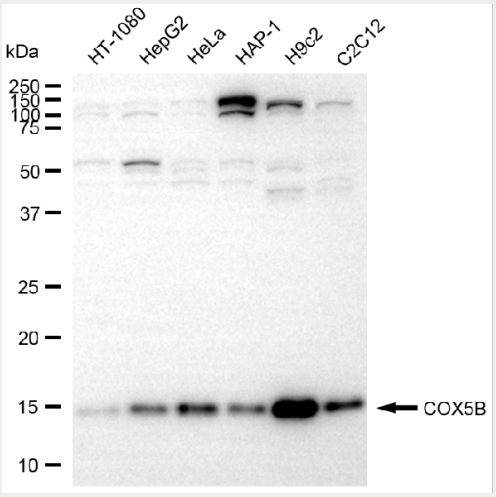
Cellular Location
Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

KD-Validated Anti-COX5B Rabbit Monoclonal Antibody - Protocols

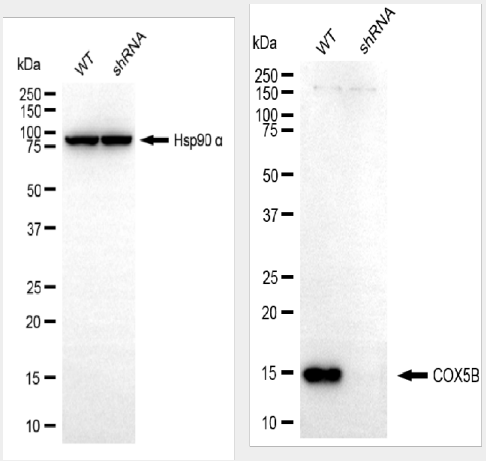
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-COX5B Rabbit Monoclonal Antibody - Images

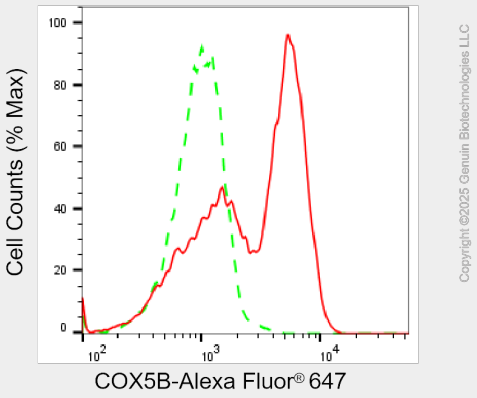


Western blotting analysis using anti-COX5B antibody (Cat#AGI2200). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-COX5B antibody (Cat#AGI2200, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Western blotting analysis using anti-COX5B antibody (Cat#AGI2200). COX5B expression in wild-type (WT) and COX5B shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-COX5B antibody (Cat#AGI2200, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of COX5B expression in H9c2 cells using anti-COX5B antibody (Cat#AGI2200, 1:2,000). Green, isotype control; red, COX5B.