

# [KO]COX5B Rabbit mAb

Catalog # AP75285

## Product Information

|                   |                          |
|-------------------|--------------------------|
| Application       | WB, IHC-P, IHC-F, FC, IP |
| Primary Accession | <a href="#">P10606</a>   |
| Reactivity        | Rat, Human, Mouse        |
| Host              | Rabbit                   |
| Clonality         | Monoclonal Antibody      |
| Isotype           | IgG                      |
| Conjugate         | Unconjugated             |
| Purification      | Affinity Purified        |
| Calculated MW     | 13696                    |

## Additional Information

|             |                                                                                                 |
|-------------|-------------------------------------------------------------------------------------------------|
| Gene ID     | 1329                                                                                            |
| Other Names | COX5B                                                                                           |
| Dilution    | WB~~1:1000-1:5000 IHC-P~~N/A IHC-F~~N/A FC~~1:10-1:100 IP~~1:50-1:100                           |
| Format      | Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA. |
| Storage     | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.        |

## 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.

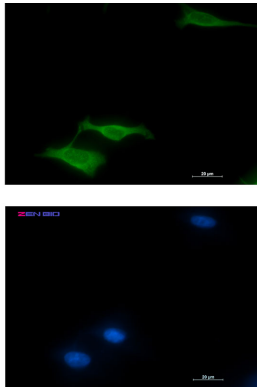
## Cellular Location

Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

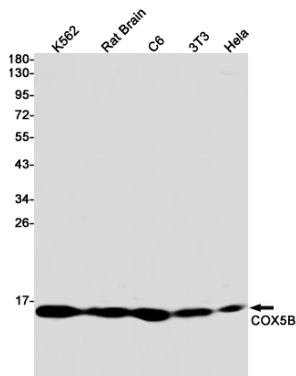
## Background

This protein is one of the nuclear-coded polypeptide chains of cytochrome c oxidase, the terminal oxidase in mitochondrial electron transport.

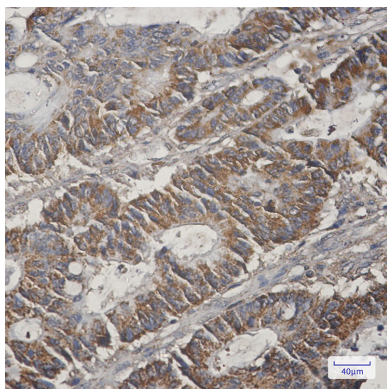
## Images



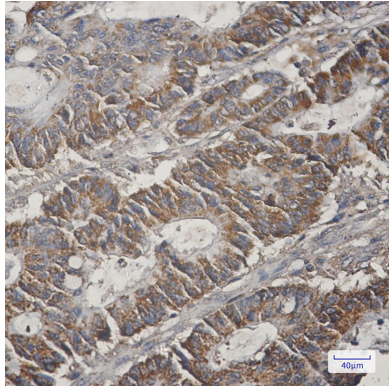
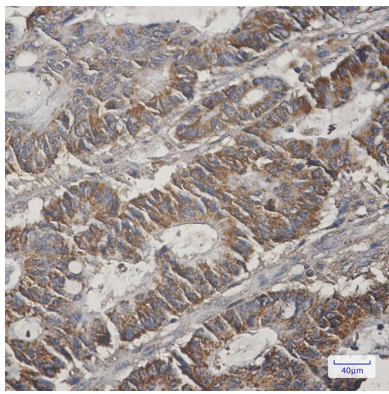
Immunocytochemistry analysis of COX5B (green) in LNcap using COX5B antibody, and DAPI (blue).



Western blot analysis of COX5B in K562, rat Brain, C6, 3T3, Hela lysates using COX5B antibody.



Immunohistochemistry analysis of paraffin-embedded Human colon cancer tissue using COX5B antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



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