

## SDHB (PT0460R) PT™ Rabbit mAb

CatalogNo: YM8296 **Recombinant** 

**★IHC**

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat, Fish

#### Applications

- WB, IHC, IF, IP, ELISA

#### MW

- 31kD (Calculated)  
31kD (Observed)

#### Isotype

- IgG, Kappa

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

### Recommended Dilution Ratios

**IHC 1:200-1:1000**

**WB 1:2000-1:10000**

**IF 1:200-1:1000**

**ELISA 1:5000-1:20000**

**IP 1:50-1:200**

### Basic Information

**Clonality** Monoclonal

**Clone Number** PT0460R

### Immunogen Information

**Immunogen** The specific immunogen used to produce this antibody is proprietary information.

**Specificity** Endogenous

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## | Target Information

**Gene name** SDHB

**Protein Name** Succinate dehydrogenase [ubiquinone] iron-sulfur subunit mitochondrial

Organism	Gene ID	UniProt ID
Human	<a href="#">6390</a> ;	<a href="#">P21912</a> ;
Mouse	<a href="#">67680</a> ;	<a href="#">Q9CQA3</a> ;
Rat	<a href="#">298596</a> ;	<a href="#">P21913</a> ;

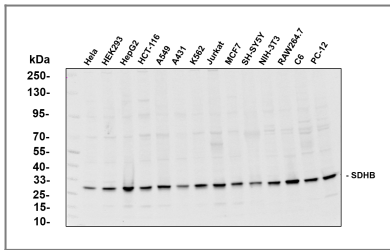
**Cellular Localization** Mitochondrion inner membrane

**Tissue specificity** Brain ,Fibroblast ,Liver ,

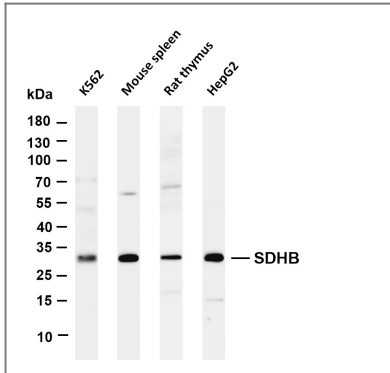
**Function** Catalytic activity:Succinate + ubiquinone = fumarate + ubiquinol. ,cofactor: Binds 1 2Fe-2S cluster. ,cofactor: Binds 1 3Fe-4S cluster. ,cofactor: Binds 1 4Fe-4S cluster. ,Disease: Defects in SDHB are a cause of Cowden-like syndrome [MIM:612359]. Cowden-like syndrome is a cancer predisposition syndrome associated with elevated risk for tumors of the breast , thyroid , kidney and uterus. ,Disease: Defects in SDHB are a cause of paraganglioma and gastric stromal sarcoma [MIM:606864]; also called Carney-Stratakis syndrome. Gastrointestinal stromal tumors may be sporadic or inherited in an autosomal dominant manner , alone or as a component of a syndrome associated with other tumors , such as in the context of neurofibromatosis type 1 (NF1) . Patients have both gastrointestinal stromal tumors and paragangliomas. Susceptibility to the tumors was inherited in an apparently autosomal dominant manner , with incomplete penetrance. ,Disease: Defects in SDHB are a cause of pheochromocytoma [MIM:171300]. The pheochromocytomas are catecholamine-producing , chromaffin tumors that arise in the adrenal medulla in 90% of cases. In the remaining 10% of cases , they develop in extra-adrenal sympathetic ganglia and may be referred to as "paraganglioma." Pheochromocytoma usually presents with hypertension. Approximately 10% of pheochromocytoma is hereditary. Although pheochromocytoma susceptibility may be associated with germline mutations in the tumor-suppressor genes VHL and NF1 and in the proto-oncogene RET , the genetic basis for most cases of non-syndromic familial pheochromocytoma is unknown. ,Disease: Defects in SDHB are the cause of hereditary paragangliomas type 4 (PLG4) [MIM:115310]; also known as familial non-chromaffin paragangliomas type 4. Paragangliomas refer to rare and mostly benign tumors that arise from any component of the neuroendocrine system. PLG4 is characterized by the development of mostly benign , highly vascular , slow growing tumors in the head and neck. In the head and neck region , the carotid body is the largest of all paraganglia and is also the most common site of the tumors. ,Function: Iron-sulfur protein (IP) subunit of succinate dehydrogenase (SDH) that is involved in complex II of the mitochondrial electron transport chain and is responsible for transferring electrons from succinate to ubiquinone (coenzyme Q) . ,pathway: Carbohydrate metabolism; tricarboxylic acid cycle. ,similarity: Belongs to the succinate dehydrogenase/fumarate reductase iron-sulfur protein family. ,similarity: Contains 1 2Fe-2S ferredoxin-type domain. ,similarity: Contains 1 4Fe-4S ferredoxin-type domain. ,subunit: Component of complex II composed of four subunits: the flavoprotein (FP) sdha , iron-sulfur protein (IP) sdhb , and a cytochrome b560 composed of sdhc and sdhd. ,

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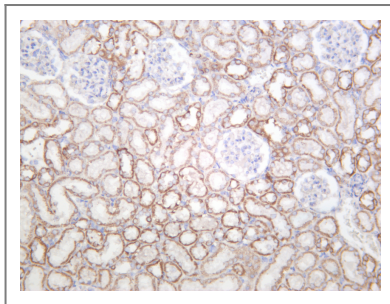
## | Validation Data



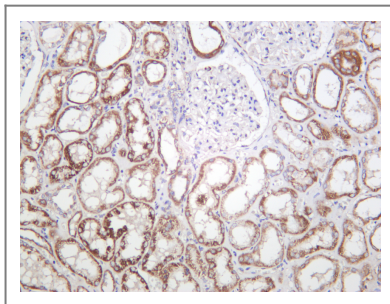
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the primary antibody was used at 4°C over night with a 1:5000 dilution . The Dylight 800-conjugated Goat anti-Rabbit antibody (Cat:RS23920) was used to detect the antibody. Lane1: HeLa - Human cervical cancer Lane2: HEK293 - Human normal embryonic kidney Lane3: HepG2 - Human hepatocellular carcinoma Lane4: HCT-116 - Human colon cancer Lane5: A549 - Human lung adenocarcinoma Lane6: A431 - Human skin squamous cell carcinoma Lane7: K562 - Human chronic myeloid leukemia Lane8: Jurkat - Human acute T cell leukemia cells Lane9: MCF7 - Human breast cancer Lane10: SH-SY5Y - Human neuroblastoma cells Lane11: NIH-3T3 - NIH mouse fibroblasts Lane12: RAW264.7 - Mouse mononuclear macrophage leukemia cells Lane13: C6 - Rat glioma cells Lane14: PC-12 - Pheochromocytoma in rats Predicted band size: 31kDa Observed band size: 31kDa



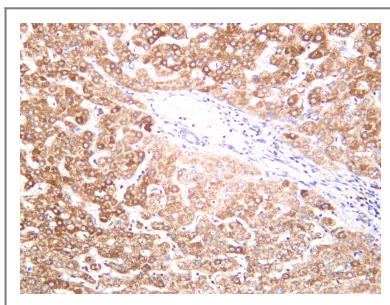
Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-SDHB antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: K562 Lane 2: Mouse spleen Lane 3: Rat thymus Lane 4: HepG2 Predicted band size: 31kDa Observed band size: 31kDa



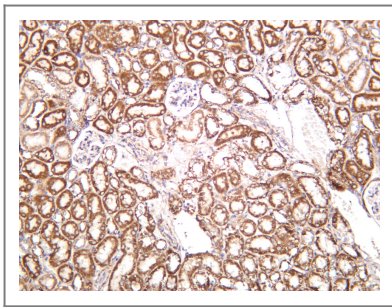
Rat kidney was stained with anti-SDHB rabbit antibody



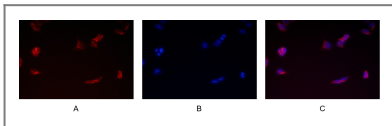
Human kidney was stained with anti-SDHB rabbit antibody



Human liver was stained with anti-SDHB rabbit antibody



Mouse kidney was stained with anti-SDHB rabbit antibody



Immunofluorescence analysis of HEK293. Picture A: SDHB antibody (red).  
Picture B: DAPI (blue). Picture C: Merge of A+B

## Contact information

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