Product Name: SDHB Rabbit Polyclonal Antibody
Catalog #: APRab17680

Summary

Production Name	SDHB Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse,Rat,Fish

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	SDHB
Alternative Names	SDHB; SDH; SDH1; Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial; Iron-sulfur subunit of complex II; Ip
Gene ID	6390.0
SwissProt ID	P21912.The antiserum was produced against synthesized peptide derived from the Internal region of human SDHB. AA range:131-180

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC: 1:100-1:300. ELISA: 1:20000..
Molecular Weight	31kD

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Background

Complex II of the respiratory chain, which is specifically involved in the oxidation of succinate, carries electrons from FADH to CoQ. The complex is composed of four nuclear-encoded subunits and is localized in the mitochondrial inner membrane. The iron-sulfur subunit is highly conserved and contains three cysteine-rich clusters which may comprise the iron-sulfur centers of the enzyme. Sporadic and familial mutations in this gene result in paragangliomas and pheochromocytoma, and support a link between mitochondrial dysfunction and tumorigenesis. [provided by RefSeq, Jul 2008],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.,

Research Area

Citrate cycle (TCA cycle);Oxidative phosphorylation;Alzheimer's disease;Parkinson's disease;Huntington's disease;

Image Data

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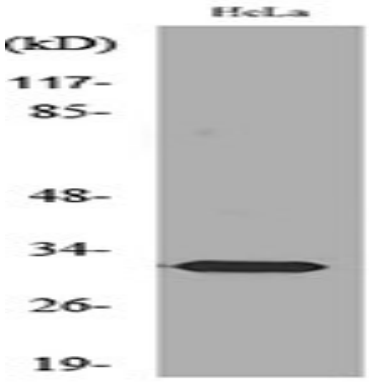
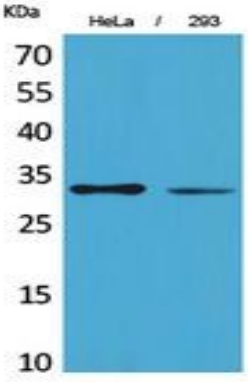
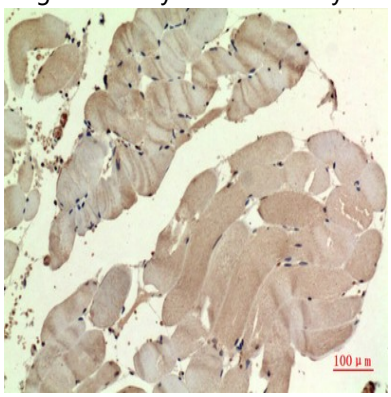


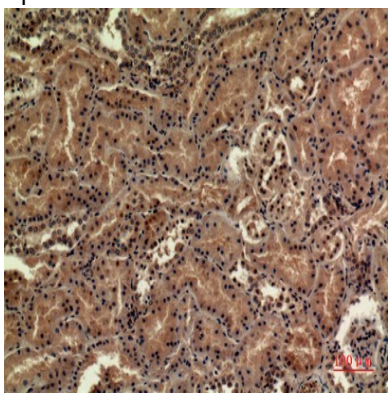
Western blot analysis of lysate from HeLa cells, using SDHB Antibody.



Western Blot analysis of HeLa, 293 cells using SDHB Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-muscle, antibody was diluted at 1:100



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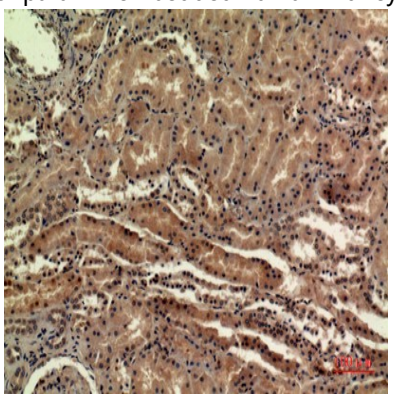
Immunohistochemical analysis of paraffin-embedded human-kidney, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-kidney, antibody was diluted at 1:100

Note

For research use only.