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SDHB Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19974b

Product Information

Application	WB, E
Primary Accession	P21912
Other Accession	Q007T0, Q9CQA3, Q3T189, NP_002991.2
Reactivity	Human
Predicted	Bovine, Mouse, Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41925
Calculated MW	31630
Antigen Region	205-234

Additional Information

Gene ID	6390
Other Names	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial, Iron-sulfur subunit of complex II, Ip, SDHB, SDH, SDH1
Target/Specificity	This SDHB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 205-234 amino acids from the C-terminal region of human SDHB.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SDHB Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SDHB
Synonyms	SDH, SDH1

Function	Iron-sulfur protein (IP) subunit of the succinate dehydrogenase complex (mitochondrial respiratory chain complex II), responsible for transferring electrons from succinate to ubiquinone (coenzyme Q) (PubMed:26925370, PubMed:27604842). SDH also oxidizes malate to the non-canonical enol form of oxaloacetate, enol- oxaloacetate (By similarity). Enol-oxaloacetate, which is a potent inhibitor of the succinate dehydrogenase activity, is further isomerized into keto-oxaloacetate (By similarity).
Cellular Location	Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

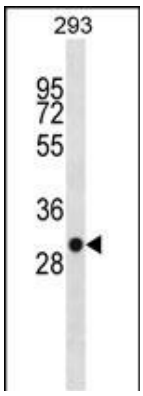
Background

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.

References

Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Cerecer-Gil, N.Y., et al. Clin. Cancer Res. 16(16):4148-4154(2010)
Schimke, R.N., et al. Am. J. Med. Genet. A 152A (6), 1531-1535 (2010) :
Hes, F.J., et al. BMC Med. Genet. 11, 92 (2010) :

Images



SDHB Antibody (C-term) (Cat. #AP19974b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the SDHB antibody detected the SDHB protein (arrow).

Citations

- Stable nuclear expression of ATP8 and ATP6 genes rescues a mtDNA Complex V null mutant.
- The effect of 3-bromopyruvate on human colorectal cancer cells is dependent on glucose concentration but not hexokinase II expression.