SDHB Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SDHB, Polyclonal Antibody
Full Product Name	SDHB, CT (SDHB, SDH, SDH1, Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial, Iron-sulfur subunit of complex II) (MaxLight 750)
Product Gene Name	anti-SDHB antibody
Product Synonym Names	SDHB; SDH; SDH1; Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial; Iron-sulfur subunit of complex II
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	31630 MW
OMIM	612359
3D Structure	ModBase 3D Structure for P21912
Immunogen	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.
Conjugate	MaxLight750
Note	Preservative Free
Product Categories/Family for anti-SDHB antibody	Antibodies; Mitochondrial Proteins
Applications Tested/Suitable for anti-SDHB antibody	Western Blot (WB), FLISA
Application Notes for anti-SDHB antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-SDHB antibody	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.
Product References and Citations for anti-SDHB antibody	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).

Other Notes	Small volumes of anti-SDHB antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SDHB purchase	MBS6345644 is an antibody targeting SDHB. Also known as SDHB, CT (SDHB, SDH, SDH1, Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial, Iron-sulfur subunit of complex II) (MaxLight 750). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SDHB. It may not necessarily be applicable to this product.

NCBI GI #	115387094
NCBI GeneID	6390
NCBI Accession #	NP_002991.2
UniProt Primary Accession #	P21912
UniProt Secondary Accession #	Q0QEY7; Q9NQ12; B2R545
UniProt Related Accession #	P21912
GenBank Nucleotide #	NM_003000.2
NCBI Official Full Name	succinate dehydrogenase
NCBI Official Synonym Full Names	succinate dehydrogenase complex iron sulfur subunit B
NCBI Official Symbol	SDHB
NCBI Official Synonym Symbols	IP; SDH; CWS2; PGL4; SDH1; SDH2; SDHIP
UniProt Protein Name	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial
UniProt Synonym Protein Names	Iron-sulfur subunit of complex II; Ip
Protein Family	8-methylmenaquinol:fumarate reductase
UniProt Gene Name	SDHB
UniProt Synonym Gene Names	SDH; SDH1; Ip
UniProt Entry Name	SDHB_HUMAN
NCBI Protein Information	succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial

UniProt Comments for SDHB	SDHB: 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). Defects in SDHB are a cause of susceptibility to pheochromocytoma (PCC). A catecholamine-producing tumor of chromaffin tissue of the adrenal medulla or sympathetic paraganglia. The cardinal symptom, reflecting the increased secretion of epinephrine and norepinephrine, is hypertension, which may be persistent or intermittent. Defects in SDHB are the cause of paragangliomas type 4 (PGL4). A neural crest tumor usually derived from the chromoreceptor tissue of a paraganglion. Paragangliomas are most commonly located in the head and neck region, specifically at the carotid bifurcation, the jugular foramen, the vagal nerve, and in the middle ear. Defects in SDHB are a cause of paraganglioma and gastric stromal sarcoma (PGGSS); 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. Defects in SDHB are a cause of Cowden-like syndrome (CWDLS). Cowden-like syndrome is a cancer predisposition syndrome associated with elevated risk for tumors of the breast, thyroid, kidney and uterus. Belongs to the succinate dehydrogenase/fumarate reductase iron-sulfur protein family. Protein type: EC 1.3.5.1; Mitochondrial; Carbohydrate Metabolism - citrate (TCA) cycle; Oxidoreductase; Energy Metabolism - oxidative phosphorylation Chromosomal Location of Human Ortholog: 1p36.1-p35 Cellular Component: mitochondrial respiratory chain complex II; mitochondrion; mitochondrial inner membrane Molecular Function: 2 iron, 2 sulfur cluster binding; ubiquinone binding; succinate dehydrogenase (ubiquinone) activity; protein binding; electron carrier activity; metal ion binding; 4 iron, 4 sulfur cluster binding; 3 iron, 4 sulfur cluster binding Biological Process: succinate metabolic process; cellular metabolic process; tricarboxylic acid cycle; aerobic respiration Disease: Gastrointestinal Stromal Tumor; Cowden Syndrome 2; Paraganglioma And Gastric Stromal Sarcoma; Paragangliomas 4; Pheochromocytoma
Research Articles on SDHB	**1.** SDHB mutation is associated with metastatic pheochromocytoma.
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