10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SDHD Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP12155a

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	O14521
Other Accession	NP_002993.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB31963
Calculated MW	17043
Antigen Region	13-42

Additional Information

Gene ID	6392
Other Names	Succinate dehydrogenase [ubiquinone] cytochrome b small subunit, mitochondrial, CybS, CII-4, QPs3, Succinate dehydrogenase complex subunit D, Succinate-ubiquinone oxidoreductase cytochrome b small subunit, Succinate-ubiquinone reductase membrane anchor subunit, SDHD, SDH4
Target/Specificity	This SDHD antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 13-42 amino acids from the N-terminal region of human SDHD.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 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	SDHD Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SDHD

Synonyms	SDH4
Function	Membrane-anchoring 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) (PubMed:10482792, PubMed:9533030). 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; Multi-pass membrane protein

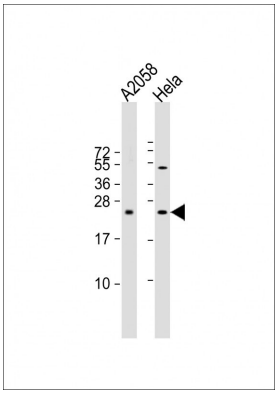
Background

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 subunit D protein is one of two integral membrane proteins anchoring the complex to the matrix side of the membrane. Mutations in SDHD have been linked to hereditary paraganglioma.

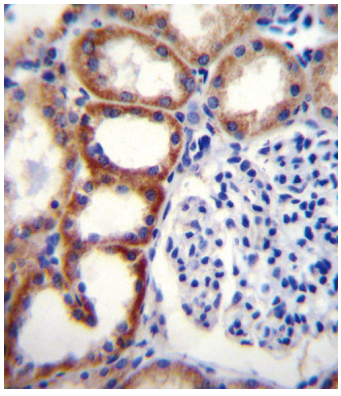
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Gill, A.J., et al. Hum. Pathol. 41(6):805-814(2010)
Milosevic, D., et al. Clin. Biochem. 43 (7-8), 700-704 (2010) :
Hermsen, M.A., et al. Cell. Oncol. 32(4):275-283(2010)
Krawczyk, A., et al. Endokrynol Pol 61(1):43-48(2010)

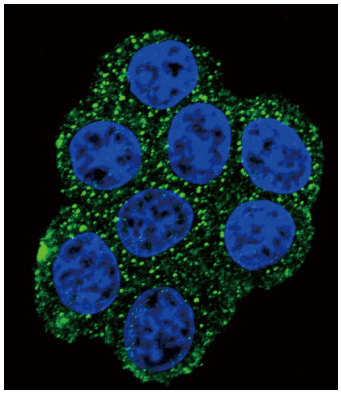
Images



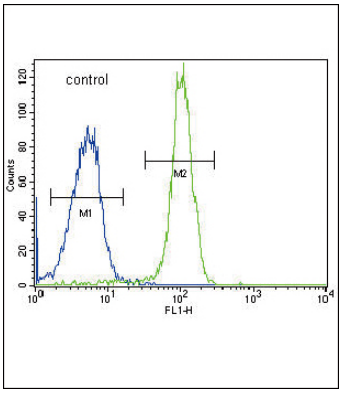
All lanes : Anti-SDHD Antibody (N-term) at 1:2000 dilution Lane 1: A2058 whole cell lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 17 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



SDHD Antibody (N-term) (Cat. #AP12155a)immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SDHD Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of SDHD Antibody (N-term)(Cat#AP12155a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).



SDHD Antibody (N-term) (Cat. #AP12155a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.