

**Goat Anti-SDHB Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1964a

## Specification

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### Goat Anti-SDHB Antibody - Product Information

Application	WB, IHC, IF, FC
Primary Accession	<a href="#">P21912</a>
Other Accession	<a href="#">NP_002991</a> , <a href="#">6390</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	31630

### Goat Anti-SDHB Antibody - Additional Information

**Gene ID** 6390

#### Other Names

Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial, 1.3.5.1, Iron-sulfur subunit of complex II, Ip, SDHB, SDH, SDH1

#### Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### Precautions

Goat Anti-SDHB Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat Anti-SDHB Antibody - 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: <http://www.uniprot.org/citations/26925370> target="\_blank">26925370</a>, PubMed: <http://www.uniprot.org/citations/27604842>)

target="\_blank">27604842</a>). 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

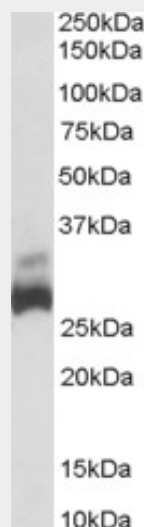
Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

#### Goat Anti-SDHB Antibody - Protocols

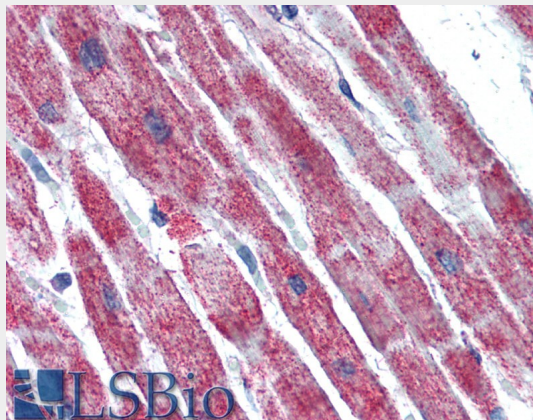
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

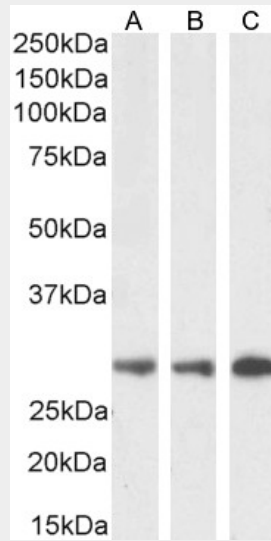
#### Goat Anti-SDHB Antibody - Images



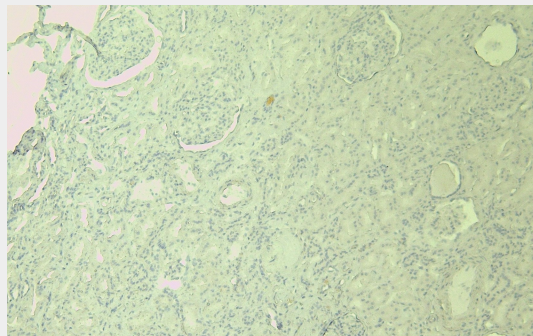
AF1964a (0.03 $\mu$ g/ml) staining of Human Liver lysate (35 $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



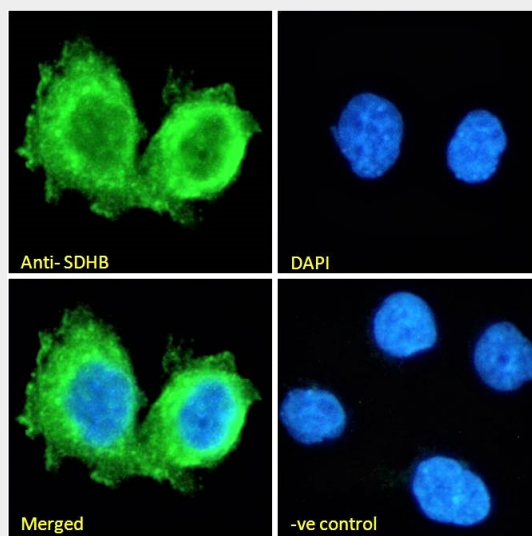
AF1964a (5µg/ml) staining of paraffin embedded Human Heart. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB06868 (0.1µg/ml) staining of HEK293 (A), Jurkat (B) and HeLa (C) cell lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

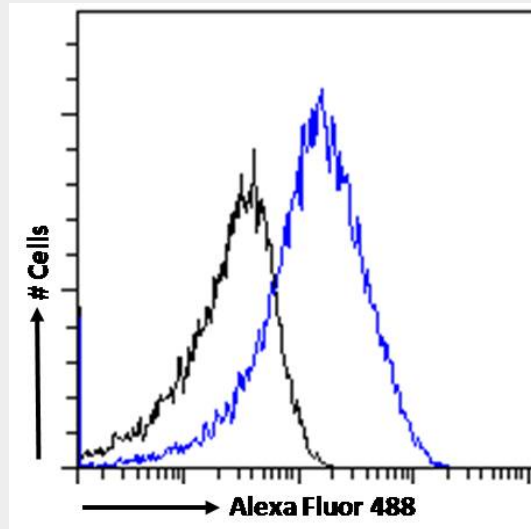


EB06868 Negative Control showing staining of paraffin embedded Human Kidney, with no primary antibody.

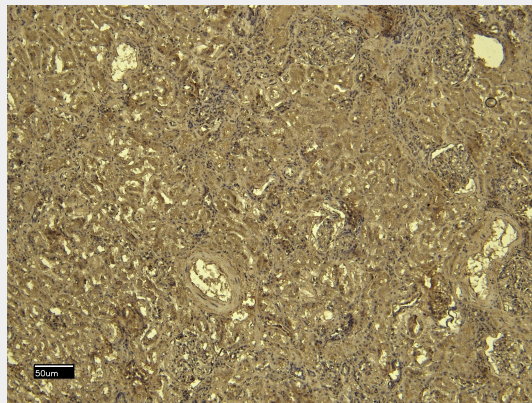


EB06868 Immunofluorescence analysis of paraformaldehyde fixed A431 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody

(2ug/ml), showing plasma membrane and cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml).



EB06868 Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) followed by Alexa Fluor 488 secondary antibody.



EB06868 (6µg/ml) staining of paraffin embedded Human Kidney. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.

### Goat Anti-SDHB Antibody - 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.

### Goat Anti-SDHB Antibody - References

An approach based on a genome-wide association study reveals candidate loci for narcolepsy. Shimada M, et al. Hum Genet, 2010 Oct. PMID 20677014.

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey

SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

Low penetrance of a SDHB mutation in a large Dutch paraganglioma family. Hes FJ, et al. BMC Med Genet, 2010 Jun 11. PMID 20540712.

Paraganglioma, neuroblastoma, and a SDHB mutation: Resolution of a 30-year-old mystery.

Schimke RN, et al. Am J Med Genet A, 2010 Jun. PMID 20503330.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.