SIGMA-ALDRICH

HPA002868 SIGMA

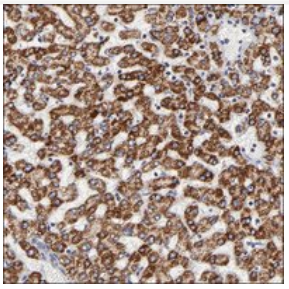
Anti-SDHB antibody produced in rabbit

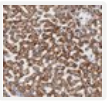
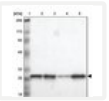
Ab2, Prestige Antibodies® Powered by Atlas Antibodies, affinity isolated antibody, buffered aqueous glycerol solution

Synonym: **Anti-Ip antibody produced in rabbit, Anti-Iron-sulfur subunit of complex II antibody produced in rabbit, Anti-Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial precursor antibody produced in rabbit**

MSDS SIMILAR PRODUCTS

Human Protein Atlas Number HPA002868 Human Protein Atlas characterization data




Properties

Related Categories	Alphabetical Index, Antibodies, Prestige Antibodies, Prestige Polyclonal Antibodies, Primary Antibodies, More...
species reactivity	**mouse, human, rat**
application(s)	**immunohistochemistry (formalin-fixed, paraffin-embedded sections): suitable**
	western blot: suitable
clone	**polyclonal**
antibody form	**affinity isolated antibody**
form	**buffered aqueous glycerol solution**
grade	**Prestige Antibodies® Powered by Atlas Antibodies**
immunogen sequence	**EGKQQYLQSIEEREKLDGLYECILC ACCSTSCPSYWWNGDKYLGPAVLMQ AYRWMIDSRDDFTEERLAKLQDPFS LYRCHTIMNCTRTCPKGLNPGKAIAEIKKMMATY**
shipped in	**wet ice**
storage temp.	**−20°C**
Gene Information	**human ... SDHB(6390)**
conjugate	**unconjugated**

Description

Immunogen

Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial precursor recombinant protein epitope signature tag (PrEST)

General description

Complex II (succinate-ubiquinone oxidoreductase) is a mitochondrial enzyme complex that regulates aerobic respiration and TCA cycle. It is the smallest mitochondrial respiratory chain complex and consists of four subunits, namely, SDHA, SDHB, SDHC, and SDHD. Germline mutations in SDHB have been associated with invasive paragangliomas and pheochromocytomas [1,2,3]. Anti-SDHB antibody is specific for SDHB in humans.

Physical form

Solution in phosphate-buffered saline, pH 7.2, containing 40% glycerol and 0.02% sodium azide

Application

Anti-SDHB antibody produced in rabbit, a Prestige Antibody, is developed and validated by the Human Protein Atlas (HPA) project **(www.proteinatlas.org)**. Each antibody is tested by immunohistochemistry against hundreds of normal and disease tissues. These images can be viewed on the Human Protein Atlas (HPA) site by clicking on the Image Gallery link. The antibodies are also tested using immunofluorescence and western blotting. To view these **protocols** and other useful information about Prestige Antibodies and the HPA, visit **sigma.com/prestige**.

Legal Information

Prestige Antibodies is a registered trademark of Sigma-Aldrich Co. LLC

Features and Benefits

Antibody Bioguarantee
Evaluate our antibodies with complete peace of mind. If the antibody does not perform in your application, we will issue a full credit or replacement antibody. **Learn more.**

Price and Availability

SKU-Pack Size	Availability	Price (EUR/CZK)	Quantity
HPA002868-100UL	Only 4 left in stock (more on the way) - FROM	9,315.00	0

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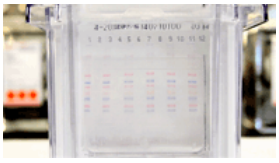

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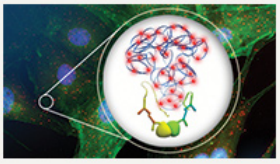

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Protein Array Procedure (79 KB)
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Western Blot Procedure (88 KB)

Safety Information

Personal Protective Equipment	Eyeshields, Gloves, half-mask respirator (US), multi-purpose combination respirator cartridge (US)
WGK Germany	1

Technical information & documentation associated with this product are available in the **Safety & Documentation** tab.

Protocols

Prestige Antibody Immunofluorescence Procedure
A large number of the Prestige Antibodies® have been used in subcellular localization studies by immunofluorescence (IF) staining of three cell lines: A-431, U-2 OS, and U-251MG. Each cell line is st...
Keywords: Immunofluorescence, Immunostaining, Molecular probes, Sample preparations

Prestige Antibody Immunohistochemistry Procedure
The Prestige Antibodies® are subjected to a standardized test procedure using specially designed tissue microarray (TMA) slides.

Keywords: Buffers, Dehydration reaction, Hydration reaction, Immunostaining, Microarray Analysis, PAGE, Tissue microarrays

Prestige Antibody Protein Array Procedure
The binding specificity of the purified Prestige Antibodies® is determined on protein arrays, using PrEST protein fragments, to ensure high specificity toward its antigen and low background binding.
Keywords: Microarray Analysis, Molecular probes

Prestige Antibody Western Blot Procedure
Some Prestige Antibodies® are verified as primary reagents for Western blot analysis using the described procedure.
Keywords: Catalytic combustion detector, Electrophoresis, Gene expression, Sample preparations, Western blot

Related Content

Antibody Explorer: Search over 77,000 Antibodies
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read abstract

1. Human complex II (succinate-ubiquinone oxidoreductase): cDNA cloning of iron sulfur (Ip) subunit of liver mitochondria.
K Kita et. al
Biochemical and Biophysical Research Communications, 166(1), 101-108 (1990)
Complex II (succinate-ubiquinone oxidoreductase) is an important enzyme complex of both the tricarboxylic acid cycle and of the aerobic respiratory chains of mitochondria in eukaryotic cell and prokaryotic organisms. In this study, the amino acid se...**Read More**

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2. Phenotypic dichotomy in mitochondrial complex II genetic disorders.
B E Baysal et. al
Journal of Molecular Medicine (Berlin, Germany), 79(9), 495-503 (2001)
This review presents our current knowledge on the genetic and phenotypic aspects of mitochondrial complex II gene defects. The mutations of the complex II subunits cause two strikingly different group of disorders, revealing a phenotypic dichotomy. ...**Read More**

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3. Epithelial to mesenchymal transition is activated in metastatic pheochromocytomas and paragangliomas caused by SDHB gene mutations.
Céline Loriot et. al
Journal of Clinical Endocrinology & Metabolism, 97(6), E954-E962 (2012)
Pheochromocytoma and paraganglioma are rare neural-crest-derived tumors. They are metastatic in 15% of cases, and the identification of a germline mutation in the SDHB gene is a predictive risk factor for malignancy and poor prognosis. To date, the ...**Read More**

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4. An immunohistochemical procedure to detect patients with paraganglioma and phaeochromocytoma with germline SDHB, SDHC, or SDHD gene mutations: a retrospective and prospective analysis.
Francien H van Nederveen et. al
The Lancet Oncology, 10(8), 764-771 (2009)
Phaeochromocytomas and paragangliomas are neuro-endocrine tumours that occur sporadically and in several hereditary tumour syndromes, including the phaeochromocytoma-paraganglioma syndrome. This syndrome is caused by germline mutations in succinate ...**Read More**

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5. SDHA is a tumor suppressor gene causing paraganglioma.
Nelly Burnichon et. al
Human Molecular Genetics, 19(15), 3011-3020 (2010)
Mitochondrial succinate-coenzyme Q reductase (complex II) consists of four subunits, SDHA, SDHB, SDHC and SDHD. Heterozygous germline mutations in SDHB, SDHC, SDHD and SDHAF2 [encoding for succinate dehydrogenase (SDH) complex assembly factor 2] cau...**Read More**

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6. Succinate dehydrogenase (SDH) D subunit (SDHD) inactivation in a growth-hormone-producing pituitary tumor: a new association for SDH?
Paraskevi Xekouki et. al
Journal of Clinical Endocrinology & Metabolism, 97(3), E357-E366 (2012)
Mutations in the subunits B, C, and D of succinate dehydrogenase (SDH) mitochondrial complex II have been associated with the development of paragangliomas (PGL), gastrointestinal stromal tumors, papillary thyroid and renal carcinoma (SDHB), and tes...**Read More**

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7. SDHA immunohistochemistry detects germline SDHA gene mutations in apparently sporadic paragangliomas and pheochromocytomas.
Esther Korpershoek et. al
Journal of Clinical Endocrinology & Metabolism, 96(9), E1472-E1476 (2011)
Pheochromocytoma-paraganglioma syndrome is caused by mutations in SDHB, SDHC, and SDHD, encoding subunits of succinate dehydrogenase (SDH), and in SDHAF2, required for flavination of SDHA. A recent report described a patient with an abdominal paraga...**Read More**

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8. SDHB immunohistochemistry: a useful tool in the diagnosis of Carney-Stratakis and Carney triad gastrointestinal stromal tumors.
José Gaal et. al
Modern Pathology, 24(1), 147-151 (2011)
Mutations in the tumor suppressor genes SDHB, SDHC, and SDHD (or collectively SDHx) cause the inherited paraganglioma syndromes, characterized by pheochromocytomas and paragangliomas. However, other tumors have been associated with SDHx mutations, s...**Read More**

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9. Mutation of SDHB is a cause of hypoxia-related high-altitude paraganglioma.
Nidia Y Cerecer-Gil et. al
Clinical Cancer Research, 16(16), 4148-4154 (2010)
Paragangliomas of the head and neck are neuroendocrine tumors and are associated with germ line mutations of the tricarboxylic acid cycle-related genes SDHB, SDHC, SDHD, and SDHAF2. Hypoxia is important in most solid tumors, and was directly implica...**Read More**

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10. Integrative genomic analysis reveals somatic mutations in pheochromocytoma and paraganglioma.
Nelly Burnichon et. al
Human Molecular Genetics, 20(20), 3974-3985 (2011)
Pheochromocytomas and paragangliomas are neuroendocrine tumors that occur in the context of inherited cancer syndromes in ~30% of cases and are linked to germline mutations in the VHL, RET, NF1, SDHA, SDHB, SDHC, SDHD, SDHAF2 and TMEM127 genes. Alth...**Read More**
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