10320 Camino Santa Fe, Suite G
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Anti-SDHA Antibody
Catalog # ABO10632

Specification

Anti-SDHA Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P31040
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Liquid**

Description
Rabbit IgG polyclonal antibody for Succinate dehydrogenase[ubiquinone] flavoprotein subunit, mitochondrial(SDHA) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Anti-SDHA Antibody - Additional Information

Gene ID 6389

Other Names
Succinate dehydrogenase [ubiquinone] flavoprotein subunit, mitochondrial, 1.3.5.1, Flavoprotein subunit of complex II, Fp, SDHA, SDH2, SDHF

Calculated MW
72692 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Mitochondrion inner membrane; Peripheral membrane protein; Matrix side.

Protein Name
Succinate dehydrogenase[ubiquinone] flavoprotein subunit, mitochondrial

Contents
Each vial contains 50% glycerol, 0.9mg NaCl, 0.2mg Na2HPO4. Carrier free (No BSA) form available in stock. If you want this antibody carrier free please specify Carrier Free" or "No BSA" in your order note. "

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human SDHA(641-656aa YRPVIDKTLNEADCAT), identical to the related rat and mouse sequences.

Purification
Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage	**At -20˚C for one year, at 4˚C for one month. Avoid repeated freezing and thawing.**

Sequence Similarities
Belongs to the FAD-dependent oxidoreductase 2 family. FRD/SDH subfamily.

Anti-SDHA Antibody - Protein Information

Name SDHA

Synonyms SDH2, SDHF

Function
Flavoprotein (FP) 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:10746566, PubMed:24781757). 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). Can act as a tumor suppressor (PubMed:20484225).

Cellular Location
Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

Anti-SDHA 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 Cytomety
- Cell Culture

Anti-SDHA Antibody - Images

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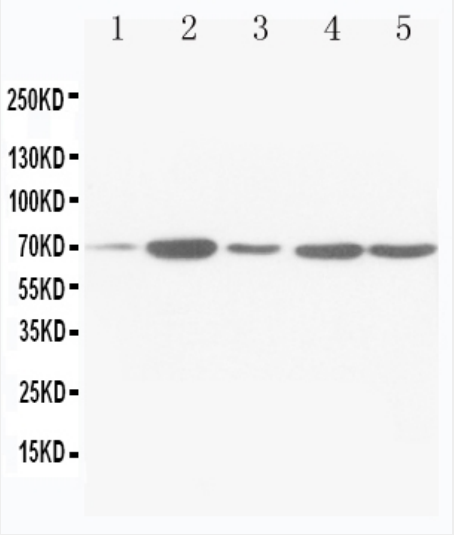
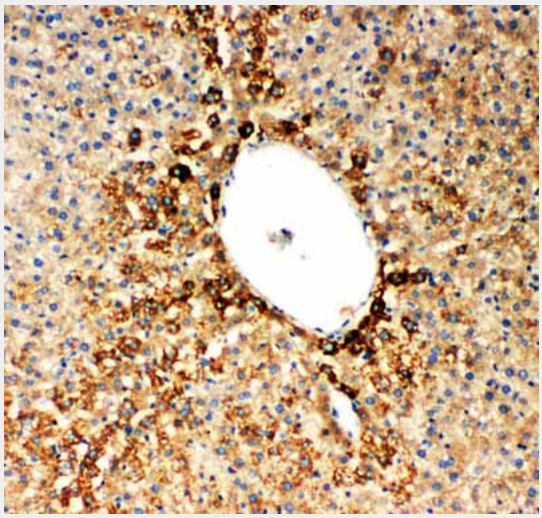
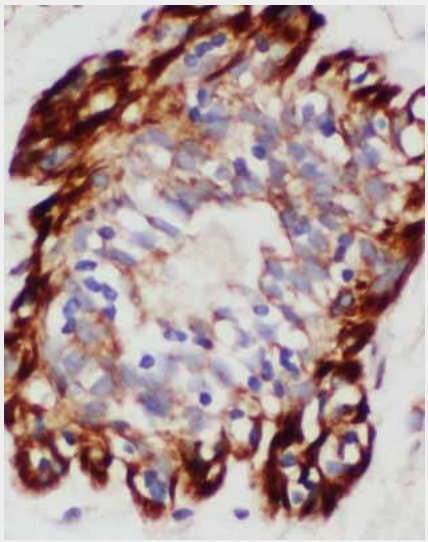


Anti-SDHA antibody, ABO10632, Western blottingLane 1: MCF-7 Cell LysateLane 2: HELA Cell LysateLane 3: JURKAT Cell LysateLane 4: HT1080 Cell LysateLane 5: COLO320 Cell Lysate



Anti-SDHA antibody, ABO10632, IHC(P)IHC(P): Rat Liver Tissue



Anti-SDHA antibody, ABO10632, IHC(P)IHC(P): Human Mammary Cancer Tissue

Anti-SDHA Antibody - Background

Complex II of the mitochondrial respiratory chain, also known as succinate dehydrogenase or succinate:ubiquinone oxidoreductase, consists of 4 nuclear-encoded polypeptides, these are the flavoprotein subunit(SDHA), the iron sulfur protein subunit(SDHB), and the integral membrane protein subunits SDHC and SDHD. SDHA is an acronym for succinate dehydrogenase complex subunit A. The succinate dehydrogenase(SDH) protein complex catalyzes the oxidation of succinate(succinate + ubiquinone => fumarate + ubiquinol). The SDHA subunit is connected to the SDHB subunit on the hydrophilic, catalytic end of the complex, and weighs 72.7 kDA. Mutations in the SDHA subunit have a distinct pathology from mutations in the SDHB/SDHC/SDHD subunits; it is the only subunit to never have shown tumor suppressor behaviour. Heterozygous carriers of an SDHA mutation do not develop paragangliomas as has been seen for mutations in the other subunits. This appears to be due to the expression of two similar SDHA genes(Types I and II) in the paraganglia system.