In aerobic respiration reactions, succinate dehydrogenase (SDH) catalyzes the oxidation of succinate and ubiquinone to fumarate and ubiquinol. Four subunits comprise the SDH protein complex: a flavochrome subunit (SDHA), an iron-sulfur protein (SDHB), and two membrane-bound subunits (SDHC and SDHD) anchored to the inner mitochondrial membrane. Mutations to these subunits cause mitochondrial dysfunction, corresponding to several distinct disorders. Mutations in the membrane bound components may cause hereditary paraganglioma, while SDHA mutations are associated with juvenile encephalopathy as well as Leigh Syndrome, a severe neurological disorder. Inactivating mutations in SDHB correlate with inherited, but not necessarily sporadic, cases of pheochromocytoma.

**REFERENCES**


**CHROMOSOMATIC LOCATION**

Genetic locus: SDHA (human) mapping to 5p15.33; Sdha (mouse) mapping to 13 C1.

**SOURCE**

SDHA (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 461-664 at the C-terminus of succinate dehydrogenase flavoprotein subunit of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SDHA (B-1) is available conjugated to agarose (sc-166909 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166909 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166909 PE), fluorescein (sc-166909 FITC), Alexa Fluor® 488 (sc-166909 AF488), Alexa Fluor® 546 (sc-166909 AF546), Alexa Fluor® 594 (sc-166909 AF594) or Alexa Fluor® 647 (sc-166909 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166909 AF680) or Alexa Fluor® 790 (sc-166909 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

SDHA (B-1) is recommended for detection of precursor and mature SDHA of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SDHA siRNA (h): sc-61834, SDHA siRNA (m): sc-61835, SDHA shRNA Plasmid (h): sc-61834-SH, SDHA shRNA Plasmid (m): sc-61835-SH, SDHA shRNA (h) Lentiviral Particles: sc-61834-V and SDHA shRNA (m) Lentiviral Particles: sc-61835-V.

Molecular Weight of SDHA: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HT-1080 whole cell lysate: sc-364183 or Hep G2 cell lysate: sc-2227.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BU-HRP: sc-516102 or m-IgG BU-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz™ Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BU-FITC: sc-516140 or m-IgG BU-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz™ Mounting Medium: sc-24941 or UltraCruz™ Hard-set Mounting Medium: sc-359850.

**DATA**

![SDHA Western blot analysis](image1)

![SDHA Immunofluorescence staining](image2)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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