

SDHC (W-20): sc-49494

BACKGROUND

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

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2. Muller, U. et al. 2005. SDHC mutations in hereditary paraganglioma/pheochromocytoma. *Fam. Cancer* 4: 9-12.
3. Gimm, O., et al. 2005. Pheochromocytoma-associated syndromes: genes, proteins and functions of RET, VHL and SDHx. *Fam. Cancer* 4: 17-23.
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5. Ishii, T., et al. 2005. A mutation in the SDHC gene of complex II increases oxidative stress, resulting in apoptosis and tumorigenesis. *Cancer Res.* 65: 203-209.
6. Neumann, H.P., et al. 2005. New genetic causes of pheochromocytoma: current concepts and the clinical relevance. *Keio. J. Med.* 54: 15-21.
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CHROMOSOMAL LOCATION

Genetic locus: SDHC (human) mapping to 1q23.3.

SOURCE

SDHC (W-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SDHC of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49494 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SDHC (W-20) is recommended for detection of SDHC of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SDHC (W-20) is also recommended for detection of SDHC in additional species, including equine and canine.

Suitable for use as control antibody for SDHC siRNA (h): sc-61510, SDHC shRNA Plasmid (h): sc-61510-SH and SDHC shRNA (h) Lentiviral Particles: sc-61510-V.

Molecular Weight of SDHC: 12 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **SDHC (C-2): sc-515102** or **SDHC (34.2): sc-100595**, our highly recommended monoclonal alternatives to SDHC (W-20).