

SDHB (FL-280): sc-25851

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 associate 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.

CHROMOSOMAL LOCATION

Genetic locus: SDHB (human) mapping to 1p36.13; Sdhb (mouse) mapping to 4 D3.

SOURCE

SDHB (FL-280) is a rabbit polyclonal antibody raised against amino acids 1-280 representing full length succinate dehydrogenase iron-sulfur protein 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.

APPLICATIONS

SDHB (FL-280) is recommended for detection of precursor and mature SDHB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SDHB (FL-280) is also recommended for detection of precursor and mature SDHB in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SDHB siRNA (h): sc-44088, SDHB siRNA (m): sc-44407, SDHB shRNA Plasmid (h): sc-44088-SH, SDHB shRNA Plasmid (m): sc-44407-SH, SDHB shRNA (h) Lentiviral Particles: sc-44088-V and SDHB shRNA (m) Lentiviral Particles: sc-44407-V.

Molecular Weight of SDHB: 32 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, MDCK cell lysate: sc-2252 or rat liver extract: sc-2395.

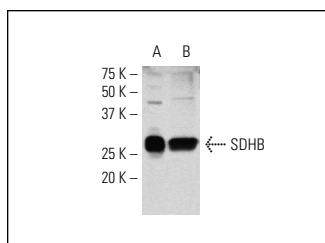
STORAGE

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

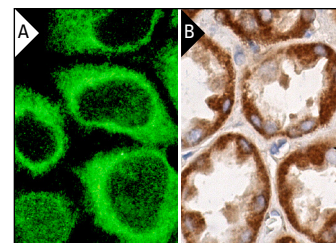
RESEARCH USE

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

DATA



SDHB (FL-280): sc-25851. Western blot analysis of SDHB expression in Hep G2 (A) and MDCK (B) whole cell lysates.



SDHB (FL-280): sc-25851. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (B).

SELECT PRODUCT CITATIONS

- Alilleche, A., et al. 2006. Mitochondrial impairment is a critical event in anthrax lethal toxin-induced cytolysis of murine macrophages. *Cell Cycle* 5: 100-106.
- Robbins, D., et al. 2010. The chemopreventive effects of Protandim: modulation of p53 mitochondrial translocation and apoptosis during skin carcinogenesis. *PLoS ONE* 5: e11902.
- Wang, F., et al. 2010. Mitochondrial uncoupling inhibits p53 mitochondrial translocation in TPA-challenged skin epidermal JB6 cells. *PLoS ONE* 5: e13459.
- Fisher, K.W., et al. 2011. Kinase suppressor of ras 1 (KSR1) regulates PGC1 α and estrogen-related receptor α to promote oncogenic Ras-dependent anchorage-independent growth. *Mol. Cell. Biol.* 31: 2453-2461.
- Wittwer, J.A., et al. 2011. Enhancing mitochondrial respiration suppresses tumor promoter TPA-induced PKM2 expression and cell transformation in skin epidermal JB6 cells. *Cancer Prev. Res.* 4: 1476-1484.
- Nordin, A., et al. 2011. Tissue-specific splicing of ISCU results in a skeletal muscle phenotype in myopathy with lactic acidosis, while complete loss of ISCU results in early embryonic death in mice. *Hum. Genet.* 129: 371-378.

PROTOCOLS

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



Try **SDHB (G-10): sc-271548**, our highly recommended monoclonal alternative to SDHB (FL-280).