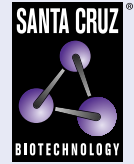


# SDHB (G-10): sc-271548



The Power to Question

## 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 (G-10) is a mouse monoclonal 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<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SDHB (G-10) is available conjugated to agarose (sc-271548 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271548 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271548 PE), fluorescein (sc-271548 FITC), Alexa Fluor® 488 (sc-271548 AF488), Alexa Fluor® 546 (sc-271548 AF546), Alexa Fluor® 594 (sc-271548 AF594) or Alexa Fluor® 647 (sc-271548 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271548 AF680) or Alexa Fluor® 790 (sc-271548 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

SDHB (G-10) is recommended for detection of precursor and mature SDHB 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 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.

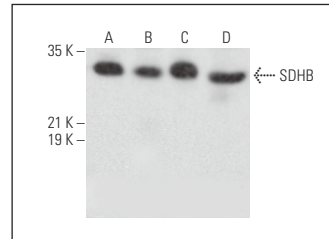
Molecular Weight of SDHB: 32 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-698-M whole cell lysate: sc-364799 or A-431 whole cell lysate: sc-2201.

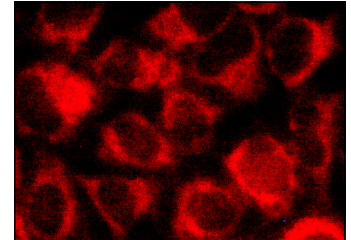
## STORAGE

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

## DATA



SDHB (G-10): sc-271548. Western blot analysis of SDHB expression in U-698-M (A), Jurkat (B) and A-431 (C) whole cell lysates and mouse liver tissue extract (D).



SDHB (G-10): sc-271548. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Baysal, B.E., et al. 2013. Hypoxia-inducible C-to-U coding RNA editing downregulates SDHB in monocytes. *PeerJ* 1: e152.
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- Yang, S., et al. 2022. Triphenylphosphonium conjugation to a TRAP1 inhibitor, 2-amino-6-chloro-7,9-dihydro-8H-purin-8-one increases antiproliferative activity. *Bioorg. Chem.* 126: 105856.
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- Xue, K., et al. 2022. The mitochondrial calcium uniporter engages UCP1 to form a thermoprotector that promotes thermogenesis. *Cell Metab.* 34: 1325-1341.e6.

## RESEARCH USE

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