SANTA CRUZ BIOTECHNOLOGY, INC.

HscB (C-19): sc-79525

BACKGROUND

HscB (HscB iron-sulfur cluster co-chaperone homolog *(E. coli)),* also known as HSC20, JAC1 or DnaJ homolog subfamily C member 20 (DNAJC20), is a 235 amino acid mitochondrial protein that functions as a co-chaperone in iron-sulfur cluster formation. Highly expressed in heart, liver and muscle, and belonging to the HscB family, HscB exists as a L-shaped crystal structure resembling *E. coli* HscB. Human HscB contains an N-terminal mitochondrial targeting signal followed by a J-domain and short loop. The C-terminal domain folds into a compact 3-helix bundle and likely mediates specific interactions with IscU. Containing 6 exons and 5 introns, the gene encoding HscB maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome.

REFERENCES

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6. Unciuleac, M.C., Chandramouli, K., Naik, S., Mayer, S., Huynh, B.H., Johnson, M.K. and Dean, D.R. 2007. *In vitro* activation of apo-aconitase using a [4Fe-4S] cluster-loaded form of the IscU [Fe-S] cluster scaffolding protein. Biochemistry 46: 6812-6821.
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CHROMOSOMAL LOCATION

Genetic locus: HSCB (human) mapping to 22q12.1; Hscb (mouse) mapping to 5 F.

STORAGE

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

SOURCE

HscB (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of HscB 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-79525 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HscB (C-19) is recommended for detection of HscB of mouse, rat and 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).

HscB (C-19) is also recommended for detection of HscB in additional species, including equine, canine and bovine.

Suitable for use as control antibody for HscB siRNA (h): sc-75306, HscB siRNA (m): sc-75307, HscB shRNA Plasmid (h): sc-75306-SH, HscB shRNA Plasmid (m): sc-75307-SH, HscB shRNA (h) Lentiviral Particles: sc-75306-V and HscB shRNA (m) Lentiviral Particles: sc-75307-V.

Molecular Weight of HscB: 27 kDa.

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.