SANTA CRUZ BIOTECHNOLOGY, INC.

DnaJC1 (G-14): sc-104898

BACKGROUND

The DnaJ family comprises a group of chaperone proteins that contain a J domain and have diverse cellular localization and functions. DnaJ proteins play a critical role in the HSP 70 chaperone machine by interacting with HSP 70 to stimulate ATP hydrolysis and are also important mediators of proteolysis and protein degradation. DnaJC1 (DnaJ homolog subfamily C member 1), also designated MTJ1, HTJ1, ERdj1 or DNAJL1, is a 554 amino acid single-pass type I membrane protein found in the membrane of the endoplasmic reticulum, nucleus and microsome. DnaJC1 contains one J domain and two SANT domains, through which it interacts with GRP 78 and AACT, respectively. Via its cytosolic domain, DnaJC1 interacts with ribosomes and likely modulates protein synthesis. The gene encoding DnaJC1 maps to human chromosome 10p12.31 and mouse chromosome 2 A3.

REFERENCES

1. Chevalier, M., et al. 2000. Interaction of murine BiP/GRP 78 with the DnaJ homologue MTJ1. J. Biol. Chem. 275: 19620-19627.
2. Lehner, B., et al. 2004. Analysis of a high-throughput yeast two-hybrid system and its use to predict the function of intracellular proteins encoded within the human MHC class III region. Genomics 83: 153-167.
3. Kroczynska, B., et al. 2004. The SANT2 domain of the murine tumor cell DnaJ-like protein 1 human homologue interacts with α1-antichymotrypsin and kinetically interferes with its serpin inhibitory activity. J. Biol. Chem. 279: 11432-11443.
4. Kroczynska, B., et al. 2005. BIP co-chaperone MTJ1/ERDJ1 interacts with inter-α-trypsin inhibitor heavy chain 4. Biochem. Biophys. Res. Commun. 338: 1467-1477.

CHROMOSOMAL LOCATION

Genetic locus: DNAJC1 (human) mapping to 10p12.31; Dnajc1 (mouse) mapping to 2 A3.

SOURCE

DnaJC1 (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DnaJC1 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-104898 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-104898 X, 200 µg/0.1 ml.

STORAGE

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

APPLICATIONS

DnaJC1 (G-14) is recommended for detection of DnaJC1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

DnaJC1 (G-14) is also recommended for detection of DnaJC1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for DnaJC1 siRNA (h): sc-90566, DnaJC1 siRNA (m): sc-143098, DnaJC1 shRNA Plasmid (h): sc-90566-SH, DnaJC1 shRNA Plasmid (m): sc-143098-SH, DnaJC1 shRNA (h) Lentiviral Particles: sc-90566-V and DnaJC1 shRNA (m) Lentiviral Particles: sc-143098-V.

DnaJC1 (G-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

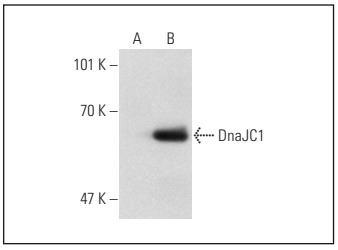
Molecular Weight of DnaJC1: 64 kDa.

Positive Controls: DnaJC1 (h): 293T Lysate: sc-111995.

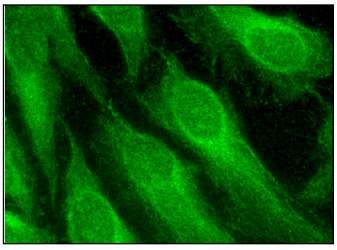
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



DnaJC1 (G-14): sc-104898. Western blot analysis of DnaJC1 expression in non-transfected: sc-117752 (**A**) and human DnaJC1 transfected: sc-111995 (**B**) 293T whole cell lysates.



DnaJC1 (G-14): sc-104898. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization.

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.