

DnaJC1 (D-10): sc-514244

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

- Chevalier, M., et al. 2000. Interaction of murine BiP/GRP78 with the DnaJ homologue MTJ1. *J. Biol. Chem.* 275: 19620-19627.
- 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.
- Kroczyńska, B., et al. 2004. The SANT2 domain of the murine tumor cell DnaJ-like protein 1 human homologue interacts with α 1-antichymotrypsin and kinetically interferes with its serpin inhibitory activity. *J. Biol. Chem.* 279: 11432-11443.

CHROMOSOMAL LOCATION

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

SOURCE

DnaJC1 (D-10) is a mouse monoclonal antibody raised against amino acids 255-554 mapping at the C-terminus of DnaJC1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-514244 X, 200 μ g/0.1 ml.

DnaJC1 (D-10) is available conjugated to agarose (sc-514244 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514244 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514244 PE), fluorescein (sc-514244 FITC), Alexa Fluor[®] 488 (sc-514244 AF488), Alexa Fluor[®] 546 (sc-514244 AF546), Alexa Fluor[®] 594 (sc-514244 AF594) or Alexa Fluor[®] 647 (sc-514244 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-514244 AF680) or Alexa Fluor[®] 790 (sc-514244 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

DnaJC1 (D-10) is recommended for detection of DnaJC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 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 (D-10) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

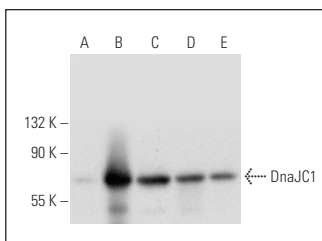
Molecular Weight of DnaJC1: 64 kDa.

Positive Controls: DnaJC1 (h): 293T Lysate: sc-111995, K-562 whole cell lysate: sc-2203 or RT-4 whole cell lysate: sc-364257.

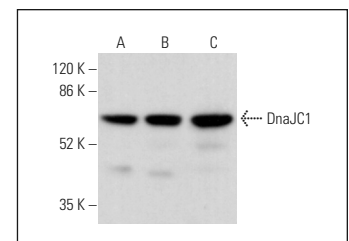
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



DnaJC1 (D-10): sc-514244. Western blot analysis of DnaJC1 expression in non-transfected 293T: sc-117752 (A), human DnaJC1 transfected 293T: sc-111995 (B), K-562 (C), HeLa (D) and RT-4 (E) whole cell lysates.



DnaJC1 (D-10): sc-514244. Western blot analysis of DnaJC1 expression in K-562 (A), MCF7 (B) and A-10 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Toki, N., et al. 2020. SINEUP long non-coding RNA acts via PTBP1 and HNRNPK to promote translational initiation assemblies. *Nucleic Acids Res.* E-published.

RESEARCH USE

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