

# DnaJC10 (E-5): sc-514624

## BACKGROUND

The DnaJ family is one of the largest of all the chaperone families and has evolved with diverse cellular localization and functions. The presence of the J domain defines a protein as a member of the DnaJ family. DnaJ heat shock induced proteins are from the bacterium *Escherichia coli* and are under the control of the *htpR* regulatory protein. The DnaJ proteins play a critical role in the HSP 70 chaperone machine by interacting with HSP 70 to stimulate ATP hydrolysis. The proteins contain cysteine rich regions that are composed of zinc fingers that form a peptide binding domain responsible for the chaperone function. DnaJ proteins are important mediators of proteolysis and are involved in the regulation of protein degradation, exocytosis and endocytosis. DnaJC10 (DnaJ homolog subfamily C member 10), also known as ERdj5 (ER-resident protein) or macrothioredoxin, is an endoplasmic reticulum co-chaperone may play a role in protein folding and translocation across the endoplasmic reticulum membrane.

## REFERENCES

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3. Suh, W.C., et al. 1998. Interaction of the HSP 70 molecular chaperone, DnaK, with its cochaperone DnaJ. *Proc. Natl. Acad. Sci. USA* 95: 15223-15228.
4. Cunnea, P.M., et al. 2003. ERdj5, an endoplasmic reticulum (ER)-resident protein containing DnaJ and thioredoxin domains, is expressed in secretory cells or following ER stress. *J. Biol. Chem.* 278: 1059-1066.
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6. Shi, Y.Y., et al. 2005. The C-terminal (331-376) sequence of *Escherichia coli* DnaJ is essential for dimerization and chaperone activity: a small angle X-ray scattering study in solution. *J. Biol. Chem.* 280: 22761-22768.
7. Qiu, X.B., et al. 2006. The diversity of the DnaJ/HSP 40 family, the crucial partners for HSP 70 chaperones. *Cell. Mol. Life Sci.* 63: 2560-2570.
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## CHROMOSOMAL LOCATION

Genetic locus: DNAJC10 (human) mapping to 2q32.1.

## SOURCE

DnaJC10 (E-5) is a mouse monoclonal antibody raised against amino acids 37-336 mapping near the N-terminus of DnaJC10 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

DnaJC10 (E-5) is recommended for detection of DnaJC10 of 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 DnaJC10 siRNA (h): sc-94897, DnaJC10 shRNA Plasmid (h): sc-94897-SH and DnaJC10 shRNA (h) Lentiviral Particles: sc-94897-V.

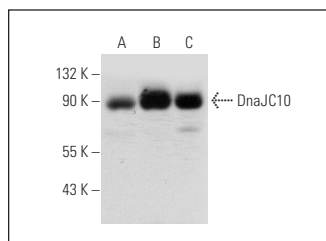
Molecular Weight of DnaJC10: 91 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NTERA-2 cl.D1 whole cell lysate: sc-364181 or ACHN whole cell lysate: sc-364365.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



DnaJC10 (E-5): sc-514624. Western blot analysis of DnaJC10 expression in HeLa (A), NTERA-2 cl.D1 (B) and ACHN (C) whole cell lysates.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.