# SANTA CRUZ BIOTECHNOLOGY, INC.

# DnaJB6 (F-8): sc-365573



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. DnaJB6 (DnaJ homolog subfamily B member 6), also known as MRJ, HSJ2, HHDJ1, or MSJ-1, is highly expressed in brain and much weaker in all other tissues.

#### REFERENCES

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- 2. Georgopoulos, C.P., et al. 1980. Identification of the *E. coli* DnaJ gene product. Mol. Gen. Genet. 178: 583-588.
- Suh, W.C., et al. 1998. Interaction of the HSP 70 molecular chaperone, DnaK, with its co-chaperone DnaJ. Proc. Natl. Acad. Sci. USA 95: 15223-15228.
- Tomoyasu, T., et al. 1998. Levels of DnaK and DnaJ provide tight control of heat shock gene expression and protein repair in *Escherichia coli*. Mol. Microbiol. 30: 567-581.
- Stewart, G.R., et al. 2004. Analysis of the function of mycobacterial DnaJ proteins by overexpression and microarray profiling. Tuberculosis 84: 180-187.
- 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 Xray 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.

# CHROMOSOMAL LOCATION

Genetic locus: DNAJB6 (human) mapping to 7q36.3; Dnajb6 (mouse) mapping to 5 B1.

#### SOURCE

DnaJB6 (F-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 110-135 within an internal region of DnaJB6 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$   $lgG_{2a}$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365573 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

# APPLICATIONS

DnaJB6 (F-8) is recommended for detection of DnaJB6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 DnaJB6 siRNA (h): sc-89742, DnaJB6 siRNA (m): sc-143095, DnaJB6 shRNA Plasmid (h): sc-89742-SH, DnaJB6 shRNA Plasmid (m): sc-143095-SH, DnaJB6 shRNA (h) Lentiviral Particles: sc-89742-V and DnaJB6 shRNA (m) Lentiviral Particles: sc-143095-V.

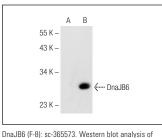
Molecular Weight of DnaJB6: 36 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 cell lysate: sc-2233 or DnaJB6 (h): 293 Lysate: sc-110582.

## **RECOMMENDED SUPPORT REAGENTS**

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

# DATA



DnaJB6 expression in non-transfected: sc-110760 (A) and human DnaJB6 transfected: sc-110582 (B) 293 whole cell lysates.

## **STORAGE**

Store at 4° C, \*\*D0 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 for detailed protocols and support products.