

DnaJB6 (B-5): sc-365574

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

1. Saito, H., et al. 1978. Organization and expression of the DnaJ and DnaK genes of *Escherichia coli* K12. *Mol. Gen. Genet.* 164: 1-8.
2. Georgopoulos, C.P., et al. 1980. Identification of the *E. coli* DnaJ gene product. *Mol. Gen. Genet.* 178: 583-588.

CHROMOSOMAL LOCATION

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

SOURCE

DnaJB6 (B-5) is a mouse monoclonal antibody raised against a peptide mapping within an internal region of DnaJB6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DnaJB6 (B-5) is available conjugated to agarose (sc-365574 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365574 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365574 PE), fluorescein (sc-365574 FITC), Alexa Fluor® 488 (sc-365574 AF488), Alexa Fluor® 546 (sc-365574 AF546), Alexa Fluor® 594 (sc-365574 AF594) or Alexa Fluor® 647 (sc-365574 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365574 AF680) or Alexa Fluor® 790 (sc-365574 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365574 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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

DnaJB6 (B-5) 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 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 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.

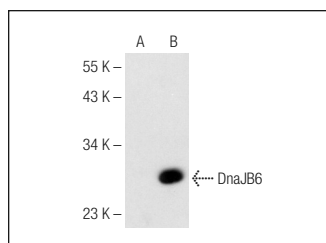
Molecular Weight of DnaJB6: 36 kDa.

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™ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



DnaJB6 (B-5): sc-365574. Western blot analysis of DnaJB6 expression in non-transfected: sc-110760 (A) and human DnaJB6 transfected: sc-110582 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Lin, Y., et al. 2014. Heat shock proteins HSP70 and MRJ cooperatively regulate cell adhesion and migration through urokinase receptor. *BMC Cancer* 14: 639.
2. Smith, C. and D'Mello, S.R. 2016. Cell and context-dependent effects of the heat shock protein DNAJB6 on neuronal survival. *Mol. Neurobiol.* 53: 5628-5639.

RESEARCH USE

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