

# HSP 40 (H-100): sc-28845

## BACKGROUND

Heat shock protein 40 (HSP 40) family proteins bind to HSP 70 through their J-domain and regulate the function of HSP 70 by stimulating HSP 70 ATPase activity. HSP 40, also known as DnaJ, functions together with DnaK (HSP 70) and GrpE as a molecular chaperone, involving them in assembly and disassembly of protein complexes, protein folding, renaturation of denatured proteins, prevention of protein aggregation and protein export. HSP 40 stimulates the association between HSC 70 and HIP and translocates rapidly from the cytoplasm to the nuclei, and especially to the nucleoli, upon heat shock. There are five known HSP 40 family proteins.

## REFERENCES

- Ohtsuka, K., Utsumi, K.R., Kaneda, T. and Hattori, H. 1993. Effect of ATP on the release of HSP 70 and HSP 40 from the nucleus in heat-shocked HeLa cells. *Exp. Cell Res.* 209: 357-366.
- Yamane, M., Hattori, H., Sugito, K., Hayashi, Y., Tohnai, I., Ueda, M., Nishizawa, K. and Ohtsuka, K. 1995. Cotranslocation and colocalization of HSP 40 (DnaJ) with HSP 70 (DnaK) in mammalian cells. *Cell Struct. Funct.* 20: 157-166.
- Kaneko, R., Hattori, H., Hayashi, Y., Tohnai, I., Ueda, M. and Ohtsuka, K. 1995. Heat-shock protein 40, a novel predictor of thermotolerance in murine cells. *Radiat. Res.* 142: 91-97.

## CHROMOSOMAL LOCATION

Genetic locus: DNAJB1 (human) mapping to 19p13.12; Dnajb1 (mouse) mapping to 8 C2.

## SOURCE

HSP 40 (H-100) is a rabbit polyclonal antibody raised against amino acids 241-340 mapping at the C-terminus of HSP 40 protein 1 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.

## APPLICATIONS

HSP 40 (H-100) is recommended for detection of HSP 40 subfamily B member 1, and to a lesser extent HSP 40 subfamily B members 4 and 5 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).

HSP 40 (H-100) is also recommended for detection of HSP 40 subfamily B member 1, and to a lesser extent HSP 40 subfamily B members 4 and 5 in additional species, including canine, bovine and porcine.

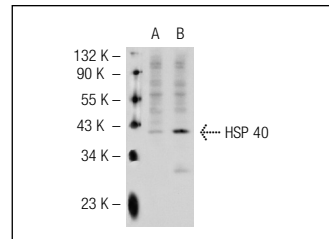
Molecular Weight of HSP 40: 40 kDa.

Positive Controls: HSP 40 (h): 293T Lysate: sc-114001, HSP 40 (m): 293T Lysate: sc-120911 or HeLa whole cell lysate: sc-2200.

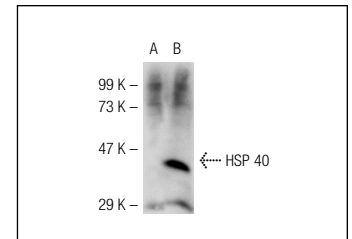
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



HSP 40 (H-100): sc-28845. Western blot analysis of HSP 40 expression in non-transfected: sc-117752 (A) and human HSP 40 transfected: sc-114001 (B) 293T whole cell lysates.



HSP 40 (H-100): sc-28845. Western blot analysis of HSP 40 expression in non-transfected: sc-117752 (A) and mouse HSP 40 transfected: sc-120911 (B) 293T 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.

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Try **HSP 40 (B-3): sc-398766** or **HSP 40 (5): sc-135943**, our highly recommended monoclonal alternatives to HSP 40 (H-100).