**BACKGROUND**

The heat shock proteins (HSPs) comprise a group of highly conserved, abundantly expressed proteins with diverse functions, including the assembly and sequestering of multiprotein complexes, transportation of nascent polypeptide chains across cellular membranes and regulation of protein folding. Heat shock proteins (also known as molecular chaperones) fall into six general families: HSP 90, HSP 70, HSP 60, the low molecular weight HSPs, the immunophilins and the HSP 110 family. The HSP 110 family (also known as the HSP 105 family) is composed of HSP 105, Apg-1 and Apg-2. HSP 105 is a testis-specific and HSP 90-related protein. Research indicates that HSP 105 is specifically localized in the germ cells and may translocate into the nucleus after heat shock. It is suggested that HSP 105 may contribute to the stabilization of p53 proteins in the cytoplasm of the germ cells, preventing the potential induction of apoptosis by p53.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: HSPH1 (human) mapping to 13q12.3; HspH1 (mouse) mapping to 5 G3.

**SOURCE**

HSP 105 (B-7) is a mouse monoclonal antibody raised against amino acids 187-512 of HSP 105 of mouse 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.

**STORAGE**

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

**APPLICATIONS**

HSP 105 (B-7) is recommended for detection of HSP 105 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 HSP 105 siRNA (h): sc-35597, HSP 105 siRNA (m): sc-35598, HSP 105 shRNA Plasmid (h): sc-35597-SH, HSP 105 shRNA Plasmid (m): sc-35596-SH, HSP 105 shRNA (h) Lentiviral Particles: sc-35597-V and HSP 105 shRNA (m) Lentiviral Particles: sc-35596-V.

Molecular Weight of HSP 105: 105 kDa.

Positive Controls: NIH/3T3 + heat shock cell lysate: sc-2217, K-562 + heat shock cell lysate: sc-24721 or HeLa whole cell lysate: sc-2200.

**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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminal 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**

![Western blot analysis of HSP 105 expression in untreated HeLa (A) and heat shock-treated HeLa (B), untreated NIH/3T3 (C) and heat shock-treated NIH/3T3 (D) whole cell lysates.](image1)

![Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.](image2)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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