

Apg-2 (h): 293T Lysate: sc-112123

BACKGROUND

The heat shock proteins (HSPs) comprise a group of highly conserved, abundantly expressed proteins with diverse functions, which include 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.

REFERENCES

1. Schlesinger, M.J., Ashburner, M. and Tissieres, A. 1982. Heat Shock: from Bacteria to Man. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory.
2. Hatayama, T., Tsujioka, K., Wakatsuki, T., Kitamura, T. and Imahara, H. 1992. Effects of low culture temperature on the induction of HSP 70 mRNA and the accumulation of HSP 70 and HSP 105 in mouse FM3A cells. *J. Biochem.* 111: 484-490.
3. Georgopoulos, C. and Welch, W.J. 1993. Role of the major heat shock proteins as molecular chaperones. *Annu. Rev. Cell Biol.* 9: 601-634.
4. Todd, M.J., Viitanen, P.V. and Lorimer, G.H. 1994. Dynamics of the chaperonin ATPase cycle: implications for facilitated protein folding. *Science* 265: 659-666.
5. Yasuda, K., Nakai, A., Hatayama, T. and Nagata, K. 1995. Cloning and expression of murine high molecular mass heat shock proteins, HSP105. *J. Biol. Chem.* 270: 29718-29723.
6. Kaneko, Y., Kimura, T., Kishishita, M., Noda, Y. and Fujita, J. 1997. Cloning of Apg-2 encoding a novel member of heat shock protein family. *Gene* 189: 19-24.
7. Xue, J.H., Fukuyama, H., Nonoguchi, K., Kaneko, Y., Kido, T., Fukumoto, M., Fujibayashi, Y., Itoh, K. and Fujita, J. 1998. Induction of Apg-1, a member of the HSP 110 family, following transient forebrain ischemia in the rat brain. *Biochem. Biophys. Res. Commun.* 247: 796-801.
8. Kumagai, J., Fukuda, J., Kodama, H., Murata, M., Kawamura, K., Itoh, H. and Tanaka, T. 2000. Germ cell-specific heat shock protein 105 binds to p53 in a temperature-sensitive manner in rat testis. *Eur. J. Biochem.* 267: 3073-3078.

CHROMOSOMAL LOCATION

Genetic locus: HSPA4 (human) mapping to 5q31.1.

PRODUCT

Apg-2 (h): 293T Lysate represents a lysate of human Apg-2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Apg-2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive Apg-2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.