

# Apg-2 (N-60): sc-6240

## 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

- Schlesinger, M.J., et al. 1982. Heat Shock: from Bacteria to Man. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory.
- Hatayama, T., et al. 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.
- Georgopoulos, C. and Welch, W.J. 1993. Role of the major heat shock proteins as molecular chaperones. *Annu. Rev. Cell Biol.* 9: 601-634.
- Todd, M.J., et al. 1994. Dynamics of the chaperonin ATPase cycle: implications for facilitated protein folding. *Science* 265: 659-666.
- Yasuda, K., et al. 1995. Cloning and expression of murine high molecular mass heat shock proteins, HSP 105. *J. Biol. Chem.* 270: 29718-29723.

## SOURCE

Apg-2 (N-60) is a rabbit polyclonal antibody raised against amino acids 60-551 of Apg-2 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Apg-2 (N-60) is recommended for detection of Apg-2 and, to a lesser extent, Apg-1 and HSP 105 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Apg-2 (N-60) is also recommended for detection of Apg-2 and, to a lesser extent, Apg-1 and HSP 105 in additional species, including equine, canine, bovine, porcine and avian.

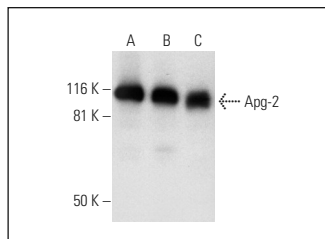
Molecular Weight of Apg-2: 120 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse brain extract: sc-2253 or mouse kidney extract: sc-2255.

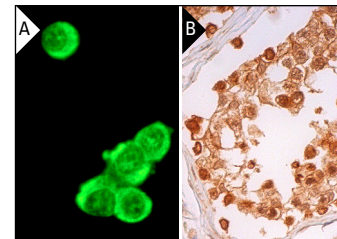
## STORAGE

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

## DATA



Apg-2 (N-60): sc-6240. Western blot analysis of Apg-2 expression in mouse brain (A), mouse liver (B) and mouse kidney (C) tissue extracts.



Apg-2 (N-60): sc-6240. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic, membrane and nuclear staining of cells in seminiferous ducts and cytoplasmic and nuclear staining of Leydig cells (B).

## SELECT PRODUCT CITATIONS

- Lee, M.Y., et al. 2002. An immunohistochemical study of Apg-2 protein in the rat hippocampus after transient forebrain ischemia. *Brain Res.* 924: 237-241.
- Held T, et al. 2006. Hspa4l-deficient mice display increased incidence of male infertility and hydronephrosis development. *Mol. Cell. Biol.* 26: 8099-8108.
- Wiseman, S.M., et al. 2007. Identification of molecular markers altered during transformation of differentiated into anaplastic thyroid carcinoma. *Arch. Surg.* 142: 717-279.
- Bertrand, J., et al. 2014. Enteral glutamine infusion modulates ubiquitination of heat shock proteins, Grp-75 and Apg-2, in the human duodenal mucosa. *Amino Acids* 46: 1059-1067.

## 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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