

Apg-2 (A-7): sc-365366

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.

CHROMOSOMAL LOCATION

Genetic locus: HSPA4 (human) mapping to 5q31.1; Hspa4 (mouse) mapping to 11 B1.3.

SOURCE

Apg-2 (A-7) is a mouse monoclonal antibody raised against amino acids 60-551 of Apg-2 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.

Apg-2 (A-7) is available conjugated to agarose (sc-365366 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365366 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365366 PE), fluorescein (sc-365366 FITC), Alexa Fluor® 488 (sc-365366 AF488), Alexa Fluor® 546 (sc-365366 AF546), Alexa Fluor® 594 (sc-365366 AF594) or Alexa Fluor® 647 (sc-365366 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365366 AF680) or Alexa Fluor® 790 (sc-365366 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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

Apg-2 (A-7) is recommended for detection of Apg-2 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 Apg-2 siRNA (h): sc-40652, Apg-2 siRNA (m): sc-40653, Apg-2 shRNA Plasmid (h): sc-40652-SH, Apg-2 shRNA Plasmid (m): sc-40653-SH, Apg-2 shRNA (h) Lentiviral Particles: sc-40652-V and Apg-2 shRNA (m) Lentiviral Particles: sc-40653-V.

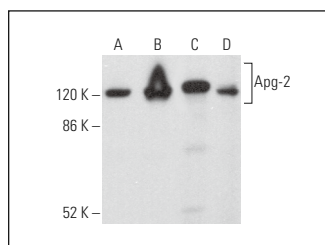
Molecular Weight of Apg-2: 120 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, C6 whole cell lysate: sc-364373 or F9 cell lysate: sc-2245.

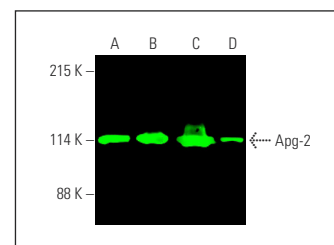
RECOMMENDED SUPPORT REAGENTS

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



Apg-2 (A-7): sc-365366. Western blot analysis of Apg-2 expression in NIH/3T3 (A) and C6 (B) whole cell lysates and mouse brain (C) and mouse kidney (D) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Apg-2 (A-7): sc-365366. Near-infrared western blot analysis of Apg-2 expression in F9 (A), RAW 264.7 (B) and NIH/3T3 (C) whole cell lysates and mouse brain tissue extract (D). Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

- Shorter, J. 2011. The mammalian disaggregase machinery: Hsp110 synergizes with Hsp70 and Hsp40 to catalyze protein disaggregation and reactivation in a cell-free system. *PLoS ONE* 6: e26319.
- Kern, F., et al. 2013. Nogo-A couples with Apg-1 through interaction and coordinate expression under hypoxic and oxidative stress. *Biochem. J.* 455: 217-227.
- Du, Z.N., et al. 2017. Expression and function of HSP 110 family in mouse testis after vasectomy. *Asian J. Androl.* 19: 355-361.

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.