SANTA CRUZ BIOTECHNOLOGY, INC.

Bag-2 (H-211): sc-366091

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Bag-2 (Bcl-2-associated athanogene 2), also known as Bag family molecular chaperone regulator 2, is a member of the Bag family of proteins and contains the most diverged of the characteristic C-terminal Bag domain. Via their Bag domain, Bag proteins bind with high affinity to the HSC 70/HSP 70 ATPase domain, regulating chaperone activity and apoptosis. Bag-2 is an evolutionarily conserved cytoplasmic protein with putative N-terminal phosphorylation sites and specifically functions as an HSC 70 co-chaperone. Bag-2 is a major component of the HSC 70/CHIP chaperone-dependent ubiquitin ligase complex and acts to disrupt CHIP-mediated ubiquitylation. In this complex, Bag-2 directly interacts with the ATPase domain of HSC 70 as well as the U-box domain of CHIP and inhibits ubiquitylation by interfering with the association between CHIP and its ubiquitin conjugating enzyme.

REFERENCES

1. Takayama, S., et al. 1999. An evolutionarily conserved family of Hsp70/Hsc70 molecular chaperone regulators. J. Biol. Chem. 274: 781-786.
2. Ueda, K., et al. 2004. Proteomic identification of Bcl2-associated athanogene 2 as a novel MAPK-activated protein kinase 2 substrate. J. Biol. Chem. 279: 41815-41821.
3. Arndt, V., et al. 2005. BAG-2 acts as an inhibitor of the chaperone-associated ubiquitin ligase CHIP. Mol. Biol. Cell 16: 5891-5900.
4. Dai, Q., et al. 2005. Regulation of the cytoplasmic quality control protein degradation pathway by BAG2. J. Biol. Chem. 280: 38673-38681.
5. Götz, R., et al. 2005. Bag1 is essential for differentiation and survival of hematopoietic and neuronal cells. Nat. Neurosci. 8: 1169-1178.
6. Wada, S., et al. 2006. A genomewide analysis of genes for the heat shock protein 70 chaperone system in the ascidian *Ciona intestinalis*. Cell Stress Chaperones 11: 23-33.

CHROMOSOMAL LOCATION

Genetic locus: BAG2 (human) mapping to 6p11.2; Bag2 (mouse) mapping to 1 B.

SOURCE

Bag-2 (H-211) is a rabbit polyclonal antibody raised against amino acids 1-211 representing full length Bag-2 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.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Bag-2 (H-211) is recommended for detection of Bag-2 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).

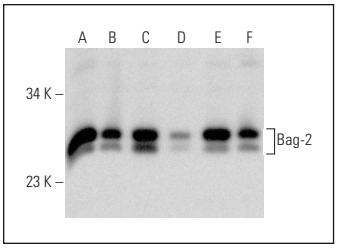
Bag-2 (H-211) is also recommended for detection of Bag-2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Bag-2 siRNA (h): sc-72600, Bag-2 siRNA (m): sc-72601, Bag-2 shRNA Plasmid (h): sc-72600-SH, Bag-2 shRNA Plasmid (m): sc-72601-SH, Bag-2 shRNA (h) Lentiviral Particles: sc-72600-V and Bag-2 shRNA (m) Lentiviral Particles: sc-72601-V.

Molecular Weight of Bag-2: 26 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or NCI-H460 whole cell lysate: sc-364235.

DATA



Bag-2 (H-211): sc-366091. Western blot analysis of Bag-2 expression in HeLa (**A**), Jurkat (**B**), Hep G2 (**C**), A549 (**D**), NCI-H460 (**E**) and A-431 (**F**) whole cell lysates.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **Bag-2 (C-6): sc-390107** or **Bag-2 (A-7): sc-390262**, our highly recommended monoclonal alternatives to Bag-2 (H-211).