SANTA CRUZ BIOTECHNOLOGY, INC.

Bag-5 (F-9): sc-390832

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Bag-5 (Bcl-2-associated athanogene 5), also known as Bag family molecular chaperone regulator 5, is a member of the Bag family of proteins and contains four Bag domains. Via their Bag domain, Bag proteins bind with high affinity to the HSC 70/HSP 70 ATPase domain, regulating chaperone activity and apoptosis. Bag-5 is a component of the HSP 70/Parkin complex and acts to inhibit Parkin E3 ubiquitin ligase activity and HSP 70 chaperone activity. In this complex, Bag-5 directly interacts with the ATPase domain of HSP 70 and the N-terminal linker region of Parkin. Bag-5 expression is induced upon dopaminergic neuron injury and functions to sensitize the neurons to injury-induced cell death. In addition, Bag-5 may be a useful target in therapies for neurodegenerative diseases such as Parkinson's disease which is caused by a mutation in the gene encoding Parkin.

CHROMOSOMAL LOCATION

Genetic locus: BAG5 (human) mapping to 14q32.33; Bag5 (mouse) mapping to 12 F1.

SOURCE

Bag-5 (F-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Bag-5 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bag-5 (F-9) is available conjugated to agarose (sc-390832 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390832 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390832 PE), fluorescein (sc-390832 FITC), Alexa Fluor® 488 (sc-390832 AF488), Alexa Fluor® 546 (sc-390832 AF546), Alexa Fluor® 594 (sc-390832 AF594) or Alexa Fluor® 647 (sc-390832 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390832 AF680) or Alexa Fluor® 790 (sc-390832 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Bag-5 (F-9) is recommended for detection of Bag-5 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), 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).

Suitable for use as control antibody for Bag-5 siRNA (h): sc-72604, Bag-5 siRNA (m): sc-72605, Bag-5 shRNA Plasmid (h): sc-72604-SH, Bag-5 shRNA Plasmid (m): sc-72605-SH, Bag-5 shRNA (h) Lentiviral Particles: sc-72604-V and Bag-5 shRNA (m) Lentiviral Particles: sc-72605-V.

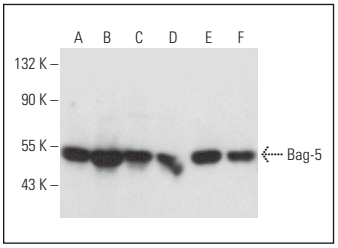
Molecular Weight of Bag-5: 51 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SH-SY5Y cell lysate: sc-3812 or 3T3-L1 cell lysate: sc-2243.

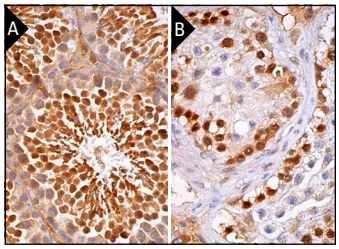
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Bag-5 (F-9): sc-390832. Western blot analysis of Bag-5 expression in Hep G2 (**A**), SH-SY5Y (**B**), 3T3-L1 (**C**), RAW 264.7 (**D**), RBL-1 (**E**) and L8 (**F**) whole cell lysates.



Bag-5 (F-9): sc-390832. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse testis tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts and cytoplasmic staining of Leydig cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic and nuclear staining of cells in seminiferous ducts and Leydig cells (**B**).

SELECT PRODUCT CITATIONS

1. Dasari, S., et al. 2020. Signals from the metastatic niche regulate early and advanced ovarian cancer metastasis through miR-4454 downregulation. Mol. Cancer Res. 18: 1202-1217.
2. Pan, M., et al. 2023. Identification of an imidazopyridine-based compound as an oral selective estrogen receptor degrader for breast cancer therapy. Cancer Res. Commun. 3: 1378-1396.
3. Sankar, D.S., et al. 2024. The ULK1 effector BAG2 regulates autophagy initiation by modulating AMBRA1 localization. Cell Rep. 43: 114689.

STORAGE

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

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.