

Bag-1 (E-11): sc-376848

BACKGROUND

The Bcl-2 family of proteins is characterized by its ability to modulate cell death (apoptosis) under a broad range of physiologic conditions. Bcl-2 and several related proteins function to inhibit apoptosis, while other members of the Bcl-2 family, such as Bax and Bak, enhance cell death under various conditions. For instance, Bcl- x_L represses cell death, while its shorter form, Bcl- x_S , promotes apoptosis. Dimerization of another member of this family, Bad, with Bcl- x_L , results in displacement of Bax from Bcl- x_L /Bax complexes and restoration of Bax-mediated apoptosis. A Bcl-2-binding protein, designated Bag-1, lacks significant homology with Bcl-2 or with other Bcl-2-related proteins. Bag-1 appears to function to enhance Bcl-2 protection from cell death, suggesting that Bag-1 represents a new type of anti-cell death gene. This also suggests that certain routes of apoptosis induction, previously ascribed to Bcl-2-independent pathways, may instead reflect a requirement for a combination of Bcl-2 and Bag-1.

CHROMOSOMAL LOCATION

Genetic locus: BAG1 (human) mapping to 9p13.3; Bag1 (mouse) mapping to 4 A5.

SOURCE

Bag-1 (E-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 117-155 within an internal region of Bag-1 of human origin.

PRODUCT

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

Bag-1 (E-11) is available conjugated to agarose (sc-376848 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376848 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376848 PE), fluorescein (sc-376848 FITC), Alexa Fluor® 488 (sc-376848 AF488), Alexa Fluor® 546 (sc-376848 AF546), Alexa Fluor® 594 (sc-376848 AF594) or Alexa Fluor® 647 (sc-376848 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376848 AF680) or Alexa Fluor® 790 (sc-376848 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376848 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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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.

PROTOCOLS

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

APPLICATIONS

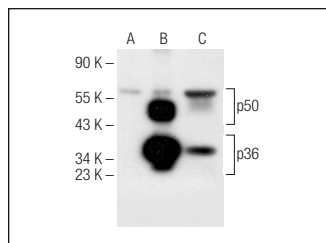
Bag-1 (E-11) is recommended for detection of Bag-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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-1 siRNA (h): sc-29211, Bag-1 siRNA (m): sc-29784, Bag-1 siRNA (r): sc-61877, Bag-1 shRNA Plasmid (h): sc-29211-SH, Bag-1 shRNA Plasmid (m): sc-29784-SH, Bag-1 shRNA Plasmid (r): sc-61877-SH, Bag-1 shRNA (h) Lentiviral Particles: sc-29211-V, Bag-1 shRNA (m) Lentiviral Particles: sc-29784-V and Bag-1 shRNA (r) Lentiviral Particles: sc-61877-V.

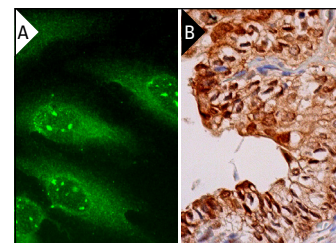
Molecular Weight of Bag-1 four major isoforms: 32/36/46/50 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HL-60 whole cell lysate: sc-2209 or Bag-1 (h): 293T Lysate: sc-112723.

DATA



Bag-1 (E-11): sc-376848. Western blot analysis of Bag-1 expression in non-transfected 293T: sc-117752 (A), human Bag-1 transfected 293T: sc-112723 (B) and HeLa (C) whole cell lysates.



Bag-1 (E-11): sc-376848. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing nuclear and cytoplasmic staining of urothelial cells (B).

SELECT PRODUCT CITATIONS

- Gavilán, E., et al. 2015. Age-related dysfunctions of the autophagy lysosomal pathway in hippocampal pyramidal neurons under proteasome stress. *Neurobiol. Aging* 36: 1953-1963.
- Haidar, M., et al. 2019. Neuropathy-causing mutations in HSPB1 impair autophagy by disturbing the formation of SQSTM1/p62 bodies. *Autophagy* 15: 1051-1068.
- Duggan, M.R., et al. 2021. Neuromodulation of BAG co-chaperones by HIV-1 viral proteins and H₂O₂: implications for HIV-associated neurological disorders. *Cell Death Discov.* 7: 60.
- Giraldo, E., et al. 2021. A rationally designed self-immolative linker enhances the synergism between a polymer-rock inhibitor conjugate and neural progenitor cells in the treatment of spinal cord injury. *Biomaterials* 276: 121052.

RESEARCH USE

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