

# BAG-6 (D-1): sc-365928

## BACKGROUND

BAT3 (HLA-B associated transcript 3), also known as G3, scythe, BAG-6 or D6S52E, is a proline-rich nuclear protein with an important role as an apoptotic regulator. BAT3 contains one ubiquitin-like domain at its N-terminus and two nuclear localization signals at its C-terminus. Specifically, BAT3 interacts with and stabilizes AIF (apoptosis inducing factor), thereby sensitizing the cell to apoptosis mediated by endoplasmic reticulum (ER) stress. Upon ricin treatment, BAT3 is cleaved by caspase-3 and its C-terminal fragment displays pro-apoptotic activities. The apoptotic activities executed include nuclear condensation, phosphatidylserine externalization, cell rounding and shrinkage. Mice that are deficient in BAT3 exhibit pronounced defects in lung, brain and kidney development and in the regulation of proliferation and apoptosis. These defects ultimately result in perinatal or midgestational lethality.

## CHROMOSOMAL LOCATION

Genetic locus: BAG6 (human) mapping to 6p21.33; Bag6 (mouse) mapping to 17 B1.

## SOURCE

BAG-6 (D-1) is a mouse monoclonal antibody raised against amino acids 833-982 mapping at the C-terminus of BAT3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BAG-6 (D-1) is available conjugated to agarose (sc-365928 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365928 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365928 PE), fluorescein (sc-365928 FITC), Alexa Fluor® 488 (sc-365928 AF488), Alexa Fluor® 546 (sc-365928 AF546), Alexa Fluor® 594 (sc-365928 AF594) or Alexa Fluor® 647 (sc-365928 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365928 AF680) or Alexa Fluor® 790 (sc-365928 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

BAG-6 (D-1) is recommended for detection of BAG-6 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 BAG-6 siRNA (h): sc-72614, BAG-6 siRNA (m): sc-72615, BAG-6 shRNA Plasmid (h): sc-72614-SH, BAG-6 shRNA Plasmid (m): sc-72615-SH, BAG-6 shRNA (h) Lentiviral Particles: sc-72614-V and BAG-6 shRNA (m) Lentiviral Particles: sc-72615-V.

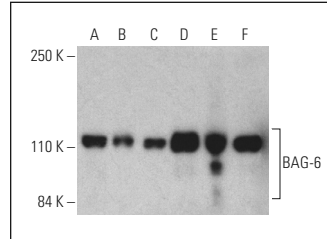
Molecular Weight of BAG-6: 119 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Hep G2 cell lysate: sc-2227 or MCF7 whole cell lysate: sc-2206.

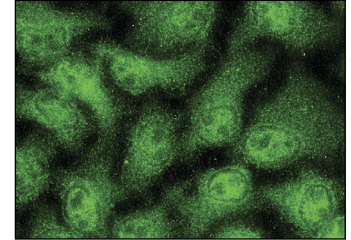
## STORAGE

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

## DATA



BAG-6 (D-1) HRP: sc-365928 HRP. Direct western blot analysis of BAG-6 expression in NTERA-2 cl.D1 (A), U-87 MG (B), A-431 (C), MCF7 (D), HEK293 (E) and Hep G2 (F) whole cell lysates.



BAG-6 (D-1): sc-365928. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

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- Yau, R.G., et al. 2017. Assembly and function of heterotypic ubiquitin chains in cell-cycle and protein quality control. *Cell* 171: 918-933.e20.
- Nixon, B., et al. 2019. Proteomic profiling of mouse epididymosomes reveals their contributions to post-testicular sperm maturation. *Mol. Cell. Proteomics* 18: S91-S108.
- Verma, M., et al. 2020. Chronic treatment with the complex I inhibitor MPP<sup>+</sup> depletes endogenous PTEN-induced kinase 1 (PINK1) via up-regulation of Bcl-2-associated athanogene 6 (BAG6). *J. Biol. Chem.* 295: 7865-7876.
- Tambe, M.A., et al. 2020. Mutations in GET4 disrupt the transmembrane domain recognition complex pathway. *J. Inherit. Metab. Dis.* 43: 1037-1045.
- Kubota, S., et al. 2021. SGTA associates with intracellular aggregates in neurodegenerative diseases. *Mol. Brain* 14: 59.
- Ragimbeau, R., et al. 2021. BAG6 promotes PINK1 signaling pathway and is essential for mitophagy. *FASEB J.* 35: e21361.
- Kasu, Y.A.T., et al. 2022. BAG6 prevents the aggregation of neurodegeneration-associated fragments of TDP43. *iScience* 25: 104273.
- Huang, J.P., et al. 2022. BAG6 negatively regulates the RLR signaling pathway by targeting VISA/MAVS. *Front. Immunol.* 13: 972184.

## RESEARCH USE

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