10320 Camino Santa Fe, Suite G
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KD-Validated Anti-BAG Cochaperone 6 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1295

Specification

KD-Validated Anti-BAG Cochaperone 6 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	P46379
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 119 kDa; observed, 160 kDa KDa**
Gene Name	**BAG6**
Aliases	**BAG6; BAG Cochaperone 6; G3; D6S52E; Scythe; BAT3; BAG Family Molecular Chaperone Regulator 6; Large Proline-Rich Protein BAG6; HLA-B-Associated Transcript 3; BCL2 Associated Athanogene 6; Protein Scyth; Protein G3; BAG-6; Large Proline-Rich Protein BAT3; HLA-B Associated Transcript 3; BCL2-Associated Athanogene 6**
Immunogen	**A synthesized peptide derived from human BAT3**

KD-Validated Anti-BAG Cochaperone 6 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**7917**

Other Names
Large proline-rich protein BAG6, BAG family molecular chaperone regulator 6, BCL2-associated athanogene 6 {ECO:0000312|HGNC:HGNC:13919}, BAG-6, HLA-B-associated transcript 3, Protein G3, Protein Scythe, BAG6 (HGNC:13919)

KD-Validated Anti-BAG Cochaperone 6 Rabbit Monoclonal Antibody - Protein Information

Name BAG6 (HGNC:13919)

Function
ATP-independent molecular chaperone preventing the aggregation of misfolded and hydrophobic patches-containing proteins (PubMed:21636303). Functions as part of a cytosolic protein quality control complex, the BAG6/BAT3 complex, which maintains these client proteins in a soluble state and participates in their proper delivery to the endoplasmic reticulum or alternatively can promote their sorting to the proteasome where they undergo degradation (PubMed:<a

href="http://www.uniprot.org/citations/20516149" target="_blank">20516149, PubMed:21636303, PubMed:21743475, PubMed:28104892). The BAG6/BAT3 complex is involved in the post-translational delivery of tail- anchored/type II transmembrane proteins to the endoplasmic reticulum membrane. Recruited to ribosomes, it interacts with the transmembrane region of newly synthesized tail-anchored proteins and together with SGTA and ASNA1 mediates their delivery to the endoplasmic reticulum (PubMed:20516149, PubMed:20676083, PubMed:25535373, PubMed:28104892). Client proteins that cannot be properly delivered to the endoplasmic reticulum are ubiquitinated by RNF126, an E3 ubiquitin-protein ligase associated with BAG6 and are sorted to the proteasome (PubMed:24981174, PubMed:27193484, PubMed:28104892). SGTA which prevents the recruitment of RNF126 to BAG6 may negatively regulate the ubiquitination and the proteasomal degradation of client proteins (PubMed:23129660, PubMed:25179605, PubMed:27193484). Similarly, the BAG6/BAT3 complex also functions as a sorting platform for proteins of the secretory pathway that are mislocalized to the cytosol either delivering them to the proteasome for degradation or to the endoplasmic reticulum (PubMed:21743475). The BAG6/BAT3 complex also plays a role in the endoplasmic reticulum-associated degradation (ERAD), a quality control mechanism that eliminates unwanted proteins of the endoplasmic reticulum through their retrotranslocation to the cytosol and their targeting to the proteasome. It maintains these retrotranslocated proteins in an unfolded yet soluble state condition in the cytosol to ensure their proper delivery to the proteasome (PubMed:21636303). BAG6 is also required for selective ubiquitin-mediated degradation of defective nascent chain polypeptides by the proteasome. In this context, it may participate in the production of antigenic peptides and play a role in antigen presentation in immune response (By similarity). BAG6 is also involved in endoplasmic reticulum stress-induced pre- emptive quality control, a mechanism that selectively attenuates the translocation of newly synthesized proteins into the endoplasmic reticulum and reroutes them to the cytosol for proteasomal degradation. BAG6 may ensure the proper degradation of these proteins and thereby protects the endoplasmic reticulum from protein overload upon stress (PubMed:26565908). By inhibiting the polyubiquitination and subsequent proteasomal degradation of HSPA2 it may also play a role in the assembly of the synaptonemal complex during spermatogenesis (By similarity). Also positively regulates apoptosis by interacting with and stabilizing the proapoptotic factor AIFM1 (By similarity). By controlling the steady-state expression of the IGF1R receptor, indirectly regulates the insulin-like growth factor receptor signaling pathway (PubMed:26692333).

Cellular Location
Cytoplasm, cytosol. Nucleus. Secreted, extracellular exosome Note=Normally localized in cytosol and nucleus, it can also be released extracellularly, in exosomes, by tumor and myeloid dendritic cells (PubMed:18055229, PubMed:18852879). Cytoplasmic retention is due to interaction with GET4 (PubMed:29042515).

Tissue Location
Expressed by immature dendritic cells (at protein level).

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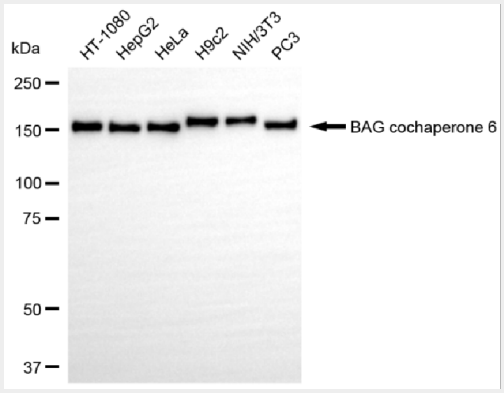
KD-Validated Anti-BAG Cochaperone 6 Rabbit Monoclonal Antibody - Protocols

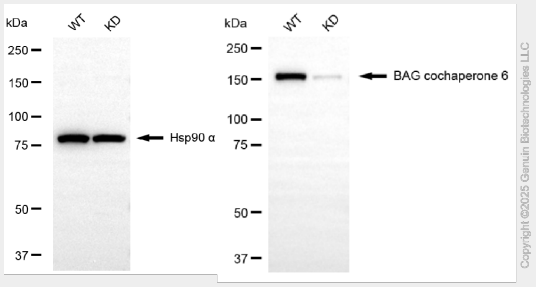
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-BAG Cochaperone 6 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-BAG cochaperone 6 antibody (Cat#AGI1295). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-BAG cochaperone 6 antibody (Cat#AGI1295, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Western blotting analysis using anti-BAG cochaperone 6 antibody (Cat#AGI1295). BAG cochaperone 6 expression in wild type (WT) and BAG cochaperone 6 (BAG6) knockdown (KD) HSHC cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-BAG cochaperone 6 antibody (Cat#AGI1295, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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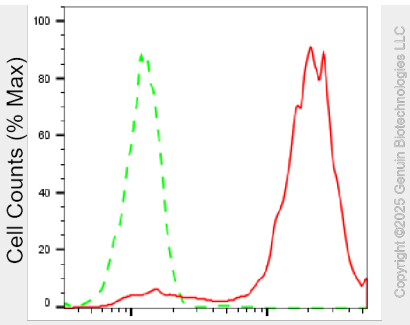
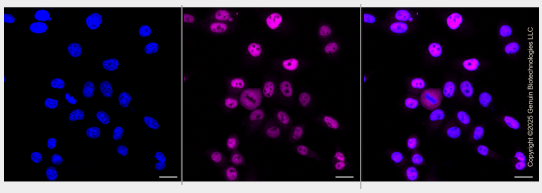


BAG cochaperone 6-Alexa Fluor® 647

Flow cytometric analysis of BAG cochaperone 6 expression in HepG2 cells using anti-BAG cochaperone 6 antibody (Cat#AGI1295, 1:2,000). Green, isotype control; red, BAG cochaperone 6.



Immunocytochemical staining of HepG2 cells with BAG cochaperone 6 antibody (Cat#AGI1295, 1:1,000). Nuclei were stained blue with DAPI; BAG cochaperone 6 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.