

Rabbit BAG1 Polyclonal Antibody | anti-BAG1 antibody

BAG1 Antibody

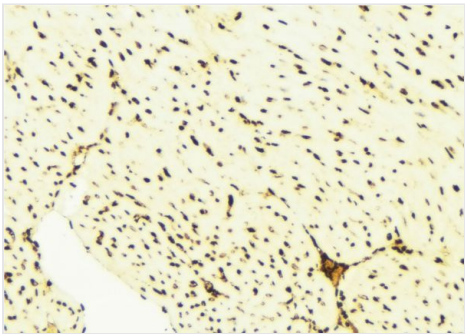
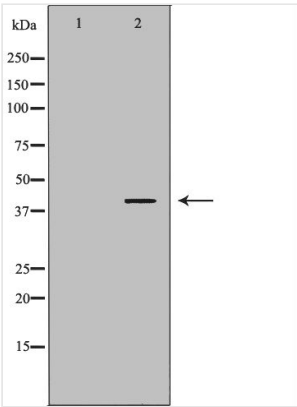
CATALOG # AAA326026	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

BAG1; Polyclonal Antibody; BAG1 Antibody; BAG 1; BAG family molecular chaperone regulator 1; BAG-1; BAG1_HUMAN; BCL 2 Associated Athanogene 1; BCL 2 associated athanogene; BCL 2 binding athanogene 1; Bcl-2-associated athanogene 1; BCL2 associated athanogene 1; BCL2 associated athanogene; Glucocorticoid receptor-associated protein RAP46; HAP1; Haptoglobin; RAP 46; RAP46; anti-BAG1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	BAG1 antibody detects endogenous levels of total BAG1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	230
Applicable Applications for anti-BAG1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human BAG1
Subcellular Location	Cytoplasm. Nucleus. Isoform 2 localizes to the cytoplasm and shuttles into the nucleus in response to heat shock; Nucleus. Cytoplasm. Isoform 1 localizes predominantly to the nucleus and cytoplasm. Nucleus. Isoform 4 localizes predominantly to the cytoplasm. The cellular background in which it is expressed can influence whether it resides primarily in the cytoplasm or is also found in the nucleus. In the presence of BCL2, localizes to intracellular membranes (what appears to be the nuclear envelope and perinuclear membranes) as well as punctate cytosolic structures suggestive of mitochondria.
Tissue Specificity	Isoform 4 is the most abundantly expressed isoform. It is ubiquitously expressed throughout most tissues, except the liver, colon, breast and uterine myometrium. Isoform 1 is expressed in the ovary and testis. Isoform 4 is expressed in several types of tumor cell lines, and at consistently high levels in leukemia and lymphoma cell lines. Isoform 1 is expressed in the prostate, breast and leukemia cell lines. Isoform 3 is the least abundant isoform in tumor cell lines (at protein level).
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326026 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of extracts of NCI-H460, using BAG1 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-BAG1 antibody

Description: Bag1 belongs to the Bcl-2 associated athanogene (BAG) family of multifunctional proteins and was the first of six related proteins isolated from humans (1, 2). This widely expressed protein interacts with a number of signaling molecules (including Bcl2, HGF receptor and Raf1) as it regulates signaling molecules in pathways involving cell survival, growth and differentiation. The most common role played by Bag1 protein is as an inhibitor of proteins favoring apoptosis (2-4). Bag1 also plays a role in Raf1 signaling and binds DNA as a transcription activator (4). Bag1 protein is a well-characterized inhibitor of its binding partner HSP70 (5). A conserved carboxy-terminal BAG domain within Bag1 interacts with the ATPase domain of HSP70 to negatively regulate heat shock protein chaperone activity (6, 7). The multiple isoforms of Bag1 protein generated from a single transcript share a common ubiquitin homology domain and a carboxy-terminal Hsp70 binding region but differ in length and cellular localization. The 50 kDa long (Bag1-L) isoform also contains a nuclear localization signal and is often found in the nucleus where it activates transcription. The 46 kDa intermediate (Bag1-M) isoform is found mainly in the cytoplasm but can also translocate to the nucleus when associated with other proteins. The shorter 29-33 kDa isoforms (Bag1-S, Bag-1) isoforms are found primarily in the cytoplasm (8). High expression of the anti-apoptotic Bag1 protein correlates with increased survival in patients with particular forms of cancer, leading researchers to study possible therapeutic roles for Bag1 protein (9).

Function: Co-chaperone for HSP70 and HSC70 chaperone proteins. Acts as a nucleotide-exchange factor (NEF) promoting the release of ADP from the HSP70 and HSC70 proteins thereby triggering client/substrate protein release. Nucleotide release is mediated via its binding to the nucleotide-binding domain (NBD) of HSPA8/HSC70 where as the substrate release is mediated via its binding to the substrate-binding domain (SBD) of HSPA8/HSC70 (PubMed:27474739, PubMed:9873016, PubMed:24318877). Inhibits the pro-apoptotic function of PPP1R15A, and has anti-apoptotic activity (PubMed:12724406). Markedly increases the anti-cell death function of BCL2 induced by various stimuli (PubMed:9305631).

Subunit Structure: Homodimer. Forms a heteromeric complex with HSP70/HSC70 (PubMed:9305631). Binds to the ATPase domain of HSP/HSC70 chaperones. Isoform 1, isoform 3 and isoform 4 but not isoform 2 interact with HSPA8/HSC70 (PubMed:27474739, PubMed:24318877, PubMed:9305631, PubMed:9679980). Interacts with NR3C1 (PubMed:10477749). Interacts with the N-terminal region of STK19 (PubMed:15986447). Interacts with PPP1R15A (PubMed:12724406). Interacts with BCL2 in an ATP-dependent manner. Isoform 2 does not interact with BCL2 (PubMed:9305631). Interacts with SIAH1 (PubMed:9582267). Interacts with HSPA8 (via NBD) (PubMed:27474739, PubMed:24318877). Interacts with HSPA1A (via NBD) and HSPA1B (via NBD) (PubMed:24318877). Interacts with SIAH2 (By similarity).

Post-translational Modifications: Ubiquitinated; mediated by SIAH1 or SIAH2 and leading to its subsequent proteasomal degradation.

NCBI AND UNIPROT INFORMATION

NCBI GI #	288915527
NCBI GeneID	573
NCBI Accession #	NP_001165886.1

NCBI GenBank Nucleotide #	NM_001172415.1
UniProt Accession #	Q99933 ; O75315 ; Q14414 ; Q53H32 ; Q5VZE8 ; Q5VZE9 ; Q5VZF0 ; Q96TG2 ; Q9Y2V4
Molecular Weight	Observed: 39 kDa Predicted: 39 kDa
NCBI Official Full Name	BAG family molecular chaperone regulator 1 isoform BAG-1S
NCBI Official Synonym Full Names	BCL2 associated athanogene 1
NCBI Official Symbol	BAG1
NCBI Official Synonym Symbols	HAP; BAG-1; RAP46
NCBI Protein Information	BAG family molecular chaperone regulator 1
UniProt Protein Name	BAG family molecular chaperone regulator 1
UniProt Gene Name	BAG1
UniProt Synonym Gene Names	HAP; BAG-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/bag1-antibody-immunohistochemistry-western-blot-elisa/326026>