

**BAG1 Blocking Peptide (Center)**  
**Synthetic peptide**  
**Catalog # BP19919c****Specification**

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**BAG1 Blocking Peptide (Center) - Product Information**

Primary Accession [O99933](#)  
Other Accession [NP\\_004314.4](#)

**BAG1 Blocking Peptide (Center) - Additional Information**

**Gene ID** 573

**Other Names**

BAG family molecular chaperone regulator 1, BAG-1, Bcl-2-associated athanogene 1, BAG1, HAP

**Target/Specificity**

The synthetic peptide sequence is selected from aa 118-131 of HUMAN BAG1

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**BAG1 Blocking Peptide (Center) - Protein Information**

**Name** BAG1

**Synonyms** HAP

**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:<a href="http://www.uniprot.org/citations/27474739" target="\_blank">27474739</a>, PubMed:<a href="http://www.uniprot.org/citations/9873016" target="\_blank">9873016</a>, PubMed:<a href="http://www.uniprot.org/citations/24318877" target="\_blank">24318877</a>). Inhibits the pro-apoptotic function of PPP1R15A, and has anti-apoptotic activity (PubMed:<a href="http://www.uniprot.org/citations/12724406" target="\_blank">12724406</a>). Markedly increases the anti-cell death function of BCL2 induced by various stimuli (PubMed:<a href="http://www.uniprot.org/citations/9305631" target="\_blank">9305631</a>). Involved in the

STUB1-mediated proteasomal degradation of ESR1 in response to age-related circulating estradiol (17-beta-estradiol/E2) decline, thereby promotes neuronal apoptosis in response to ischemic reperfusion injury (By similarity).

#### **Cellular Location**

[Isoform 1]: Nucleus. Cytoplasm. Note=Isoform 1 localizes predominantly to the nucleus [Isoform 4]: Cytoplasm. Nucleus. Note=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 Location**

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).

### **BAG1 Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)

### **BAG1 Blocking Peptide (Center) - Images**

### **BAG1 Blocking Peptide (Center) - Background**

The oncogene BCL2 is a membrane protein that blocks a step in a pathway leading to apoptosis or programmed cell death. The protein encoded by this gene binds to BCL2 and is referred to as BCL2-associated athanogene. It enhances the anti-apoptotic effects of BCL2 and represents a link between growth factor receptors and anti-apoptotic mechanisms. Multiple protein isoforms are encoded by this mRNA through the use of a non-AUG (CUG) initiation codon, and three alternative downstream AUG initiation codons. A related pseudogene has been defined on chromosome X.

### **BAG1 Blocking Peptide (Center) - References**

Maier, J.V., et al. Biochem. Biophys. Res. Commun. 401(3):406-411(2010)  
Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)  
Sun, N., et al. Am. J. Surg. 200(3):341-345(2010)  
Liu, H.Y., et al. Acta Pharmacol. Sin. 30(2):235-241(2009)  
Lee, S.S., et al. Exp. Cell Res. 313(15):3222-3238(2007)