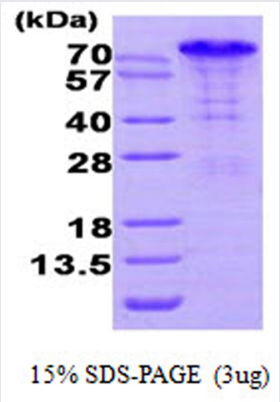
# BAG3 Recombinant Protein

## PRODUCT OVERVIEW

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| **Product Name** | BAG3, Recombinant Protein |
| **Full Product Name** | BAG3, 1-575aa, Human, His tag, E Coli |
| **Product Gene Name** | BAG3 recombinant protein |
| **Product Synonym Names** | BAG family molecular chaperone regulator 3; BIS; CAIR-1; BAG family molecular chaperone regulator 3 BAG 3; Bcl 2 binding protein; BCL2 associated athanogene 3; BCL2 binding athanogene 3; Docking protein CAIR 1. |
| **Sequence** | MGSSHHHHHH SSGLVPRGSH MSAATHSPMM QVASGNGDRD PLPPGWEIKI DPQTGWPFFV DHNSRTTTWN DPRVPSEGPK ETPSSANGPS REGSRLPPAR EGHPVYPQLR PGYIPIPVLH EGAENRQVHP FHVYPQPGMQ RFRTEAAAAA PQRSQSPLRG MPETTQPDKQ CGQVAAAAAA QPPASHGPER SQSPAASDCS SSSSSASLPS SGRSSLGSHQ LPRGYISIPV IHEQNVTRPA AQPSFHQAQK THYPAQQGEY QTHQPVYHKI QGDDWEPRPL RAASPFRSSV QGASSREGSP ARSSTPLHSP SPIRVHTVVD RPQQPMTHRE TAPVSQPENK PESKPGPVGP ELPPGHIPIQ VIRKEVDSKP VSQKPPPPSE KVEVKVPPAP VPCPPPSPGP SAVPSSPKSV ATEERAAPST APAEATPPKP GEAEAPPKHP GVLKVEAILE KVQGLEQAVD NFEGKKTDKK YLMIEEYLTK ELLALDSVDP EGRADVRQAR RDGVRKVQTI LEKLEQKAID VPGQVQVYEL QPSNLEADQP LQAIMEMGAV AADKGKKNAG NAEDPHTETQ QPEATAAATS NPSSMTDTPG NPAAP |
| **Host** | E Coli |
| **Form/Format** | Liquid. In 20mM Tris-HCl Buffer (pH 8.0) containing 1mM EDTA, 0.1mM PMSF, 10% glycerol |
| **Purity/Purification** | > 90% by SDS-PAGE |
| **Concentration** | 0.5 mg/ml (determined by Bradford assay) (lot specific) |
| **Preparation and Storage** | Can be stored at 4 degree C short term (1-2 weeks).<br>For long term storage, aliquot and store at -20 degree C or -70 degree C.<br>Avoid repeated freezing and thawing cycles. |
| **Molecular Weight** | 63.7 kDa (595aa) |
| **OMIM** | AF095193 mRNA |
| **3D Structure** | ModBase 3D Structure for O95817 |
| **Antigen Species** | Human |
| **Tag Information** | His-tag |
| **Product Categories/Family for BAG3 recombinant protein** | Heat Shock Proteins |
| **Applications Tested/Suitable for BAG3 recombinant protein** | SDS-PAGE |
| **Related Product Information for BAG3 recombinant protein** | BAG3 was reported initially as a protein-refolding cochaperone of the bcl2 binding protein BAG family and as upregulated in response to persistent stress of cellular calcium balance dysregulation. The BAG domains of BAG1, BAG2, and BAG3 interact specifically with the Hsc70 ATPase domain in vitro and in mammalian cells. All 3 proteins bind with high affinity to the ATPase domain of Hsc70 and inhibit its chaperone activity in a Hip-repressible manner. Also, it has been shown to diminish stress-induced apoptosis. Recombinant human BAG3, fused to His-tag at N-terminus, was expressed in E Coli and purified by using conventional chromatography techniques. |
| **Product References and Citations for BAG3 recombinant protein** | Virador VM., et al. (2009) PLos One. 4 (4):e5136. ; Kyratsous CA., et al. (2008) Proc Natl Acad Sci u S A. 105 (52):20912-7.; |
| **Other Notes** | Small volumes of BAG3 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

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| **Searchable Terms for BAG3 purchase** | MBS203482 is a recombinant protein targeting BAG3. Also known as BAG3, 1-575aa, Human, His tag, E Coli. Host: E Coli. |




**SDS-Page of BAG3 recombinant protein**

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BAG3. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 14043024 |
| **NCBI GeneID** | 9531 |
| **NCBI Accession #** | NP_004272 |
| **UniProt Primary Accession #** | O95817 |
| **UniProt Secondary Accession #** | Q3B763; Q9NT20; Q9P120; A8K5L8 |
| **UniProt Related Accession #** | O95817 |
| **GenBank Nucleotide #** | NM_004281.3 |
| **NCBI Official Full Name** | BAG family molecular chaperone regulator 3 |
| **NCBI Official Synonym Full Names** | BCL2 associated athanogene 3 |
| **NCBI Official Symbol** | BAG3 |
| **NCBI Official Synonym Symbols** | BIS; MFM6; BAG-3; CAIR-1 |
| **UniProt Protein Name** | BAG family molecular chaperone regulator 3 |
| **UniProt Synonym Protein Names** | Bcl-2-associated athanogene 3; Bcl-2-binding protein Bis; Docking protein CAIR-1 |
| **Protein Family** | BAG family molecular chaperone regulator |
| **UniProt Gene Name** | BAG3 |
| **UniProt Synonym Gene Names** | BIS; BAG-3 |
| **NCBI Protein Information** | BAG family molecular chaperone regulator 3 |
| **NCBI Summary for BAG3** | BAG proteins compete with Hip for binding to the Hsc70/Hsp70 ATPase domain and promote substrate release. All the BAG proteins have an approximately 45-amino acid BAG domain near the C terminus but differ markedly in their N-terminal regions. The protein encoded by this gene contains a WW domain in the N-terminal region and a BAG domain in the C-terminal region. The BAG domains of BAG1, BAG2, and BAG3 interact specifically with the Hsc70 ATPase domain in vitro and in mammalian cells. All 3 proteins bind with high affinity to the ATPase domain of Hsc70 and inhibit its chaperone activity in a Hip-repressible manner. [provided by RefSeq, Jul 2008] |

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| **UniProt Comments for BAG3** | 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:9873016, PubMed:27474739). Has anti-apoptotic activity (PubMed:10597216). Plays a role in the HSF1 nucleocytoplasmic transport (PubMed:26159920). |
| **Research Articles on BAG3** | **1.** Our findings suggest that high levels of BIS expression might confer stem-cell-like properties on cancer cells through STAT3 stabilization |
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