

## Product datasheet for **TP518600**

### **Bag6 (NM\_057171) Mouse Recombinant Protein**

#### **Product data:**

**Product Type:** Recombinant Proteins

**Description:** Purified recombinant protein of Mouse BCL2-associated athanogene 6 (Bag6), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug

**Species:** Mouse

**Expression Host:** HEK293T



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Expression cDNA Clone or AA Sequence: >MR218600 representing NM\_057171  
Red=Cloning site Green=Tags(s)

MEPSDSASTAMEEPDSLVLVKTLDSTQTRTFIVGAQMNVKEFKHEIAASVSIPSEKQRLIYQGRVLQDDK  
KLQEYNVGGKVHILVERAPPQTQLPSGASSGTGSASATHGGAPLPGTRPGASVHDRNANSYVMVGTFN  
L  
PSDGSAVDVHINMEQAPIQSEPRVRLVMAQH MIRD IQTLLSRMECRGGTQAQASQPPPQTPQTVASETV  
A  
LNSQTSEPVESEAPPREPMESSEEMEERPPTQTPELAPSGPAPAGPAPAGPAPAPETNAPNHPSPAEHVEV  
LQELQRLQRR LQPFLQRYCEVLGAAATTDYNNNH EGREEDQRLINLVGESLRLLGNTFVALSDLRCNLAC  
APPRHLHVVRPMSHYTT PMVLQQAIIQIINV GTTVMTGN GARPP PAPGAEAATPGSAQATSLPPSSTT  
VDSSTEGAPPPGPAPPPASSHPRVIRISHQSVEPVMMHMNIQDSGAQPGGVPSAPTGPLGPPGHGQTL  
G  
QQVPGFPTAPTRVIARPTPPQARPSHPGGPPVSGALQGAGLG T NTS LA QMV SGLVGQLLMQPVLVAQ  
GT  
PGMAQAQAQAQAQAQAQAQAQA PAPA PAPA PAPA PATASASAGTTNTATTAGPAPGGPAQPPPPQPSAADL  
QFS  
QLLGNLLGPAGPGAGGPGMASPTITVAMPGVPAFLQGM TDFLQASQTAPPPPPPPPPPPAPEQQSTP  
PP  
GPSGGTASP GGLGPESLPPEFFT SVVQGVLSLLGSLGARAGSS ESIAAFIQRLSGSSNIFEPGADGAL  
GFFGALLSLLCQNFSMVDV VML LHGH FQPLQRLQPQLRSFFHQHYLGGQEPTPSNIRMATH TLITGLEEY  
VRESFSLVQVQPGVDIIRTNLEFLQE QFN SIAAHVLHCTDSGFGARLLELCNQGLFECLALNLHCLGGQQ  
MELAAVINGRIRMRSGVNPSLVSWLTMMGLRLQVVLEHMPVGPDAILRYVRRVGDPPQTLPEEPMEV  
Q  
GAERTSPEPQRENASPAGTTAE EAMS RGP PPAP EGGS RDEQDGASADAEPWAAA VPPEWVPIIQQDIQS  
QRKVKPQPPLSDAYLSGMPAKRRKTMQGE GPQLLLSEAVSRAAKAAGARPLTSPESLSRDLEAPEVQESY  
ROOLRSDIOKRLOEDPNYS PORFPNAHRAFADDP

TRTRPLEOKLISEEDLAANDILDYKDDDDKV

<b>Tag:</b>	C-MYC/DDK
<b>Predicted MW:</b>	121.5 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	NP_476512

Locus ID: 224727  
UniProt ID: [Q9Z1R2](#)  
RefSeq Size: 3708  
Cytogenetics: 17 18.59 cM  
RefSeq ORF: 3462  
Synonyms: 2410045D21Rik; AA408914; BAG-6; Bat3; D17H6S52E; G3; Scythe

**Summary:**

ATP-independent molecular chaperone preventing the aggregation of misfolded and hydrophobic patches-containing proteins (PubMed:18056262, PubMed:18678708, PubMed:20713601). 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 to their proper delivery to the endoplasmic reticulum or alternatively can promote their sorting to the proteasome where they undergo degradation (PubMed:20713601). 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. 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. SGTA which prevents the recruitment of RNF126 to BAG6 may negatively regulate the ubiquitination and the proteasomal degradation of client proteins. 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. 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 (By similarity). BAG6 is also required for selective ubiquitin-mediated degradation of defective nascent chain polypeptides by the proteasome. In this context, it may participate to the production of antigenic peptides and play a role in antigen presentation in immune response (PubMed:20713601). 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 (By similarity). 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 (PubMed:18678708). Also positively regulates apoptosis by interacting with and stabilizing the proapoptotic factor AIFM1 (PubMed:18056262). By controlling the steady-state expression of the IGF1R receptor, indirectly regulates the insulin-like growth factor receptor signaling pathway (By similarity). [UniProtKB/Swiss-Prot Function]