

## Product datasheet for **RG220122**

### **BAG2 (NM\_004282) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	BAG2 (NM_004282) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	BAG2
Synonyms:	BAG-2; dj41711.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220122 representing NM_004282 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTCAGGCGAAGATCAACGCTAAAGCCAACGAGGGGCGTTCTGCCGCTCCTCCTCCATGGCTGACC  
GCTCCAGCCGCTGCTGGAGAGCCTGGACCAGCTGGAGCTCAGGGTTGAAGCTTTGAGAGAAGCAGCAAC  
TGCTGTTGAGCAAGAGAAAGAAATCCTTCTGGAAATGATCCACAGTATCCAAAATAGCCAGGACATGAGG  
CAGATCAGTGACGGAGAAAGAGAAGAATTAATCTGACTGCAAACCGTTTGATGGGAAGAACTCTCACCG  
TTGAAGTGTCAAGTAAACAATTAGAAACCCCAAGCAAGAATCCCTAAAGCATGCCACAAGGATTAT  
TGATGAGGTGGTCAATAAGTTTCTGGATGATTTGGGAAATGCCAAGAGTCATTTAATGTCGCTCTACAGT  
GCATGTTCACTGAGGTGCCACATGGGCCAGTTGATCAGAAGTTTCAATCCATAGTAATTGGCTGTGCTC  
TTGAAGATCAGAAGAAAATTAAGAGAAGATTAGAGACTCTGCTTAGAAAATATTGAAAACCTGACAAGGC  
CATCAAGCTATTAGAGCATTCTAAAGGAGCTGTTCCAAAACCTGCAACAAAATGCTGAAAAGCAGATTC  
AAT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG220122 representing NM\_004282  
 Red=Cloning site Green=Tags(s)

MAQAKINAKANEGRCRSSSMADRSSRLLESLDQLELRVEALREAAATAVEQEKEILLEMIHSIQNSQDMR  
 QISDGEREELNLTANRLMGRRTLVEVSVETIRNPQQQESLKHATRIIDEVVNKFLLDLGNAKSHLMSLYS  
 ACSSEVPHGPVDQKFQSIIVIGCALEDQKKIKRRLETLLRNIENSDKAIKLLLEHSGAGSKTLQQNAESRF  
 N

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004282

**ORF Size:** 633 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_004282.4](#)

**RefSeq Size:** 1556 bp

**RefSeq ORF:** 636 bp

**Locus ID:** 9532

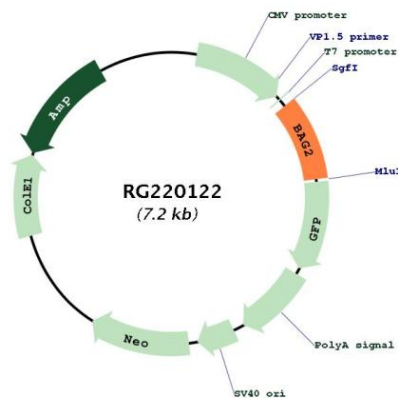
**UniProt ID:** [O95816](#)

**Cytogenetics:** 6p12.1

**Protein Families:** Druggable Genome

**Gene Summary:** 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 predicted BAG2 protein contains 211 amino acids. 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]

## Product images:



Circular map for RG220122