

Product datasheet for **MG210352**

Hsp90aa1 (BC046614) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Hsp90aa1 (BC046614) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Hsp90aa1
Synonyms:	86kDa, 89kDa
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>MG210352 representing BC046614
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTGAGGAAACCCAGACCCAAGACCAACCAATGGAGGAGGAGGAGGTCGAGACCTTTGCCTTTTCAGG
 CAGAAATTGCCAGTTAATGTCCTTGATCATCAATACCTTCTACTCGAACAAAGAGATCTTTCTGAGGGA
 GCTCATCTCCAATTCATCGGACGCTCTGGATAAAATCCGTTACGAGAGCCTGACGGACCCAGTAAACTG
 GACTCGGGGAAGGAGCTGCACATCAATCTCATTCCCAGCAAACAGGACCGAACCTGACCATTGTGGATA
 CCGGGATTGGAATGACCAAGGCCGACTTGATCAATAACCTTGGCACCATTGCCAAGTCGGGCACCAAAGC
 CTTTCATGGAGGCTTTGCAGGCTGGTGCAGATATCTCTATGATTGGCCAGTTTGGTGTGGTTTTACTCT
 GCCTATTTGGTTGCTGAGAAAGTACTGTCATCACGAAGCATAACGACGATGAGCAGTATGCCTGGGAGT
 CCTCAGCTGGGGATCCTTCACAGTGAGGACTGACACAGGTGAACCAATGGTCTGGAACAAAGGTTAT
 CTTGCATCTGAAAGAAGACCAAACAGAGTATTTGGAGGAAAGGAGAATAAAGGAGATCGTGAAGAAGCAT
 TCTCAGTTCATTGGCTATCCATTACTCTTTTGGGAGAAGGAACGAGATAAGGAAGTCAGTGATGATG
 AGGCTGAAGAAAAGGAAGAGAAAAGGAAGAGAAAAGAAAAGAAAAGGAGTCTGATGATAAACCTGA
 AATAGAAGATGTTGGCTCTGATGAAGAAGAGGAGGAGAAGAAGGATGGTGACAAGAAGAAAAGAAAGAA
 ATAAAGGAAAAGTACATTGATCAAGAAGAACTCAACAAAACAAAGCCGATTTGGACGAGAAATCCTGATG
 ACATCACTAATGAGGAATATGGAGAGTTCTACAAGAGCTTAACTAACGATTGGGAAGAACTTGGCAGT
 AAAGCATTTTTCTGTTGAAGGACAATTAGAATTCGGGGCCCTCTTTTTGTCCTCAAGACGCGCTCCTTTT
 GATCTGTTTGAACAGAAAAGAAAAGAAACAACATCAAGTTGTATGTTTCGAGAGTTTTTATCATGGATA
 ACTGTGAGGAATTAATCCCTGAGTATCTGAATTTTATTAGAGGGTGTAGTGATTCTGCCCTCTCCCTCT
 AAATATTTCCCGTGAAATGCTGCAACAAAGTAAAATTCTGAAAGTTATCAGAAAAGAAATTTGGTCAAGAAA
 TGCTTAGAACTATTTACTGAACTAGCAGAAGATAAAGAGAAGTCAAAAAAGTTTTATGAGCAGTTCTCAA
 AAAATATAAAGCTTGGAAATTCACGAGGACTCTCAGAATCGGAAGAAGCTTTCAGAGCTGTTGCGGTA
 CACATCTGCTTCTGGGGACGAGATGGTTTCTCTGAAGGACTACTGTACCAGAATGAAGGAAAACAGAA
 CACATCTATTTTATCACAGGTGAGACCAAGGACCAGTTGCTAACTCCGCTTTGTGGAACGTCTCCGAA
 AGCATGGCTTAGAAGTAATTTATGATTGAGCCATTGATGAGTATTGTGTGCAACAGCTGAAGGAATT
 TGAGGGCAAGACCTTGGTGTCTGTTACCAAGAAGGACTGGAAGTCCAGAAGATGAAGAGGAAAAGAA
 AACAGGAAGAGAAAAGACAAAATTTGAGAACCTCTGCAAAATTTGAAAGATATTTGGAGAAGAAAGG
 TTGAAAAGGTGGTTGTGCAACCGACTGGTGACATCCCGTGCTGTATTGTCAACAGCAGATATGGGTG
 GACAGCAAACATGGAGAGAATCATGAAAGCTCAAGCCCTCAGAGACAACCTCAACAATGGGTACATGGCA
 GCAAAGAAACACCTGGAGATAAATCCTGATCACTCCATTATTGAAACCTTAAGGCAAAAGGCAGAGGCTG
 ACAAGAATGACAAATCTGTGAAGGATCTGGTCACTTGTGATGAAACTGCACTCCTATCTTCTGGCTT
 CAGTCTGGAAGATCCCAGACCCATGCTAACAGGATCTACAGGATGATCAAGCTTGGTCTAGGTATTGAT
 GAGGATGATCCTACTGTGGATGACACCAGTGTGCTGTAAGTGAAGAAATGCCTCCCTGGAAAGGAGATG
 ACGACACATCACGCATGGAAGAAGTAGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210352 representing BC046614
 Red=Cloning site Green=Tags(s)

MPEETQTQDQPMEEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNSSDALDKIRYESLTDPSKL
 DSGKELHINLIPSKQDRTLTIVDTGIGMTKADLINNLTIAKSGTKAFMEALQAGADISMIGQFVGVFYS
 AYLVAEKVTVITKHNDEQYAWESSAGGSFTVRTDTGEPMGRGTVILHLKEDQTEYLEERRIKEIVKKH
 SQFIGYPITLFLVEKERDKEVSDDEAEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEEKEE
 IKEKYIDQEELNKTPIWTRNPDDITNEEYGEFYKSLTNDWEEHLAVKHFSVEGQLEFRALLFVPRRAPF
 DLFENRKKKNNIKLYVRRVIFMDNCEELIPEYLNFIIRGVVDSDELPLNISREMLQQSKILKVIRKNLVKK
 CLELFTELAEDKENYKFFYEQFSKNIKLGIHEDSQNRKKSSELLRYTASGDEMVSCLKDYCTRMKENQK
 HIYFITGETKDQVANSFVERLRKHGLEVIYMIPIDEYCVQQLKEFEGKTLVSVTKEGLELPEDEEEKK
 KQEKKTKFENLCKIMKDILEKKVEKVVVSNRLVTSPCCIVTSTYGWTANMERIMKAQALRDNSTMGYMA
 AKKHLEINPDHSIIETLRQKAEADKNDKSVKDLVILLYETALLSSGFLEDPQTHANRIYRMIKLGLGID
 EDDPTVDDTSAAVTEEMPPLLEGDDDTSRMEEVD

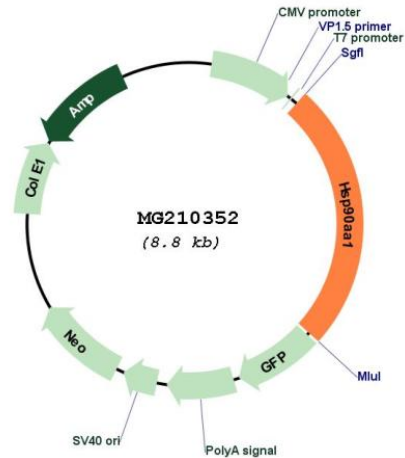
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: BC046614

ORF Size: 2199 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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: [BC046614.1](#)

RefSeq Size: 2800 bp

RefSeq ORF: 2201 bp

Locus ID: 15519

Cytogenetics: 12 60.75 cM

Gene Summary: Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity which is essential for its chaperone activity. This cycle probably induces conformational changes in the client proteins, thereby causing their activation. Interacts dynamically with various co-chaperones that modulate its substrate recognition, ATPase cycle and chaperone function. Engages with a range of client protein classes via its interaction with various co-chaperone proteins or complexes, that act as adapters, simultaneously able to interact with the specific client and the central chaperone itself. Recruitment of ATP and co-chaperone followed by client protein forms a functional chaperone. After the completion of the chaperoning process, properly folded client protein and co-chaperone leave HSP90 in an ADP-bound partially open conformation and finally, ADP is released from HSP90 which acquires an open conformation for the next cycle. Apart from its chaperone activity, it also plays a role in the regulation of the transcription machinery. HSP90 and its co-chaperones modulate transcription at least at three different levels. In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues. Second, they modulate the activity of certain epigenetic modifiers, such as histone deacetylases or DNA methyl transferases, and thereby respond to the change in the environment. Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression. Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes. Antagonizes STUB1-mediated inhibition of TGF-beta signaling via inhibition of STUB1-mediated SMAD3 ubiquitination and degradation.[UniProtKB/Swiss-Prot Function]