

## Product datasheet for **MR210352**

### Hsp90aa1 (BC046614) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hsp90aa1 (BC046614) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hsp90aa1
Synonyms:	86kDa, 89kDa
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR210352 representing BC046614  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGCCTGAGGAAACCCAGACCCAAGACCAACCAATGGAGGAGGAGGAGGTCGAGACCTTTGCCTTTTCAGG  
CAGAAATTGCCAGTTAATGTCCTTGATCATCAATACCTTCTACTCGAACAAAGAGATCTTTCTGAGGGA  
GCTCATCTCCAATTCATCGGACGCTCTGGATAAAATCCGTTACGAGAGCCTGACGGACCCAGTAAACTG  
GACTCGGGGAAGGAGCTGCACATCAATCTCATTCCAGCAAACAGGACCGAACCTGACCATTGTGGATA  
CCGGGATTGGAATGACCAAGGCCGACTTGATCAATAACCTTGGCACCATTGCCAAGTCGGGCACCAAAGC  
CTTCATGGAGGCTTTGCAGGCTGGTGCAGATATCTCTATGATTGGCCAGTTTGGTGTGGTTTTACTCT  
GCCTATTTGGTTGCTGAGAAAGTACTGTCATCACGAAGCATAACGACGATGAGCAGTATGCCTGGGAGT  
CCTCAGCTGGGGATCCTTACAGTGAGGACTGACACAGGTGAACCAATGGGTCGTGGAACAAAGGTTAT  
CTTGATCTGAAAGAAGACCAAACAGAGTATTTGGAGGAAAGGAGAATAAAGGAGATCGTGAAGAAGCAT  
TCTCAGTTCATTGGCTATCCATTACTCTTTTGGGAGAAGGAACGAGATAAGGAAGTCAGTGATGATG  
AGGCTGAAGAAAAGGAAGAGAAAAGGAAGAGAAAAGAAAAGAAAAGGAGTCTGATGATAAACCTGA  
AATAGAAGATGTTGGCTCTGATGAAGAAGAGGAGGAGAAGAAGGATGGTGACAAGAAGAAAAGAAAGAA  
ATAAAGGAAAAGTACATTGATCAAGAAGAACTCAACAAAACAAAGCCGATTTGGACGAGAAATCCTGATG  
ACATCACTAATGAGGAATATGGAGAGTTCTACAAGAGCTTAACTAACGATTGGGAAGAACACTTGGCAGT  
AAAGCATTTTTCTGTTGAAGGACAATTAGAATTCGGGGCCCTTCTTTTTGTCCTAAGACGCGCTCCTTTT  
GATCTGTTTGAACAGAAAAGAAAAGAAACAACATCAAGTTGTATGTTTCGAGAGTTTTTATCATGGATA  
ACTGTGAGGAATTAATCCCTGAGTATCTGAATTTTATTAGAGGGGTAGTGGATTCTGAGGATCTCCCTCT  
AAATATTTCCCGTGAAATGCTGCAACAAAGTAAAATTCTGAAAGTTATCAGAAAGAATTTGGTCAAGAAA  
TGCTTAGAACTATTTACTGAACTAGCAGAAGATAAAGAGAACTACAAAAAGTTTTATGAGCAGTTCTCAA  
AAAATATAAAGCTTGGAAATTCACGAGGACTCTCAGAATCGGAAGAAGCTTTCAGAGCTGTTGCGGTA  
CACATCTGCTTCTGGGACGAGATGGTTTCTCTGAAGGACTACTGTACCAGAATGAAGGAAAACAGAA  
CACATCTATTTTATCACAGGTGAGACCAAGGACCAGGTTGCTAACTCCGCCTTTGTGGAACGTCTCCGAA  
AGCATGGCTTAGAAGTAATTTATGATTGAGCCATTGATGAGTATTGTGTGCAACAGCTGAAGGAATT  
TGAGGGCAAGACCTTGGTGTCTGTTACCAAGAAGGACTGGAACCTCCAGAAGATGAAGAGGAAAAGAA  
AAACAGGAAGAGAAAAGACAAAATTTGAGAACCTCTGCAAAATTTATGAAAGATATTTGGAGAAGAA  
TTGAAAAGGTGGTTGTGTCAAACCGACTGGTGACATCCCGTGCTGTATTGTCAACAGCAGATATGGGTG  
GACAGCAAACATGGAGAGAATCATGAAAGCTCAAGCCCTCAGAGACAACCTCAACAATGGGTTACATGGCA  
GCAAAGAAAACCTGGAGATAAATCCTGATCACTCCATTATTGAAACCTTAAGGCAAAAGGCAGAGGCTG  
ACAAGAATGACAAATCTGTGAAGGATCTGGTCACTTGTGATGAAACTGCACTCCTATCTTCTGGCTT  
CAGTCTGGAAGATCCCAGACCCATGCTAACAGGATCTACAGGATGATCAAGCTTGGTCTAGGTATTGAT  
GAGGATGATCCTACTGTGGATGACACCAGTGTGCTGTAAGTGAAGAAATGCCTCCCTGGAAGGAGATG  
ACGACACATCACGCATGGAAGAAGTAGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATGAGTTTAA



**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](mailto: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

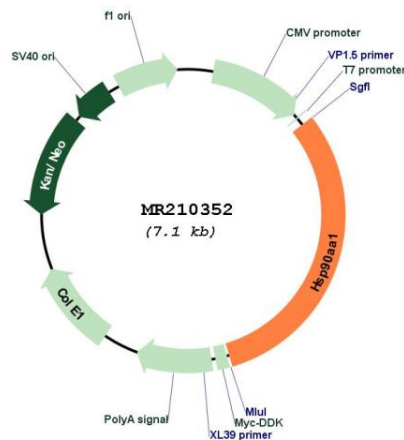
**Locus ID:** 15519

**Cytogenetics:** 12 60.75 cM

**MW:** 84.8 kDa

**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]

**Product images:**


Circular map for MR210352