

## Product datasheet for RC201782

### AHA1 (AHSA1) (NM\_012111) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	AHA1 (AHSA1) (NM_012111) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AHA1
Synonyms:	AHA1; C14orf3; hAha1; p38
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201782 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCCAAGTGGGGTGAGGGAGACCCACGCTGGATCGTGGAGGAGCGGGCGGACGCCACCAACGTCAACA  
ACTGGCACTGGACGGAGAGAGATGCTTCAAATTTGGTCCACGGATAAGCTGAAAACACTGTTCTGGCAGT  
GCAGGTTCAAAAATGAAGAAGGCAAGTGTGAGGTGACGGAAGTGAAGCTTGATGGAGAGGCATCCATT  
AACAAATCGCAAAGGAACTTATCTTCTTTATGAATGGAGCGTCAAACAACTGGACAGGTACTTCTA  
AGTCAGGAGTACAATACAAAGGACATGTGGAGATCCCCAATTTGTCTGATGAAAACAGCGTGGATGAAGT  
GGAGATTAGTGTGAGCCTTGCCAAAGATGAGCCTGACACAAATCTCGTGGCCTTAATGAAGGAAGAAGGG  
GTGAAACTTCTAAGAGAAGCAATGGGAATTTACATCAGCACCCCTCAAACAGAGTTACCCAGGGCATGA  
TCTTACCTACAATGAATGGAGAGTCAGTAGACCCAGTGGGGCAGCCAGCACTGAAAACAGGAGCGCAA  
GGCTAAGCCTGCTCCTTCAAAAACCCAGGCCAGACCTGTTGGAGTCAAAAATCCCCACTTGTAAAGTCACT  
CTTAAGGAAACCTTCTGACGTCACCAGAGGAGCTCTATAGAGTGTACCACCCAAGAGCTGGTGCAGG  
CCTTTACCATGCTCCTGCAACATTAGAAGCAGACAGAGGTGGAAAGTCCACATGGTAGATGGCAACGT  
CTCTGGGAATTTACTGATCTGGTCCCTGAGAAACATATTGTGATGAAGTGGAGGTTAAATCTTGGCCA  
GAGGGACACTTTGCCACCATCACCTTGACCTTCATCGACAAGAACGGAGAGACTGAGCTGTGCATGGAAG  
GTCGAGGCATCCCTGCTCCTGAGGAAGAGCGGACGCGACAGGGCTGGCAGCGGTACTACTTTGAGGGCAT  
TAAACAGACCTTTGGCTATGGCGCACGCTTATTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201782 protein sequence  
Red=Cloning site Green=Tags(s)

MAKWGEGDPRWIVEERADATNVNNHWHWTERDASNWSTDKLKTLFLAVQVQNEEGKCEVTEVSKLDGEASI  
 NNRKGGKLIFFYEWVSVKLNWTGTSKSGVQYKGVHEIPNLSSENSVDEVEISVSLAKDEPDTNLVALMKEEG  
 VKLLREAMGIYISTLKTEFTQGMILPTMNGESVDPVGPALKTEERKAKPAPSKTQARPVGVKIPTCKIT  
 LKETFLTSPPEELYRVFTTQELVQAFTHAPATLEADRGGKFMVDGNVSGEFTDLVPEKHIVMKWRFKSWP  
 EGHFATITLTFIDKNGETELCMEGRGIPAPEEERTRQGWRYYFEGIKQTFGYGARLF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6084\\_f01.zip](https://cdn.origene.com/chromatograms/mk6084_f01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_012111

**ORF Size:** 1014 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\\_012111.3](#)

**RefSeq Size:** 1429 bp

**RefSeq ORF:** 1017 bp

**Locus ID:** 10598

**UniProt ID:** [O95433](#)

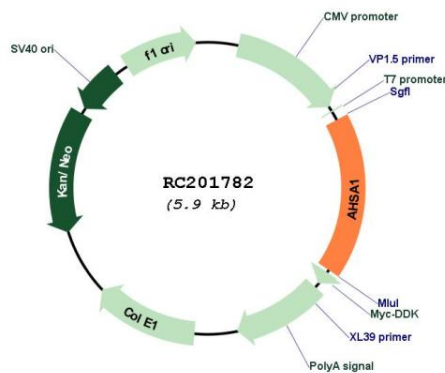
**Cytogenetics:** 14q24.3

**Domains:** DUF704

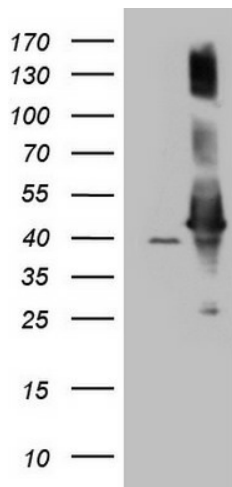
**MW:** 38.3 kDa

**Gene Summary:** Acts as a co-chaperone of HSP90AA1 (PubMed:29127155). Activates the ATPase activity of HSP90AA1 leading to increase in its chaperone activity (PubMed:29127155). Competes with the inhibitory co-chaperone FNIP1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (PubMed:27353360). Competes with the inhibitory co-chaperone TSC1 for binding to HSP90AA1, thereby providing a reciprocal regulatory mechanism for chaperoning of client proteins (PubMed:29127155). [UniProtKB/Swiss-Prot Function]

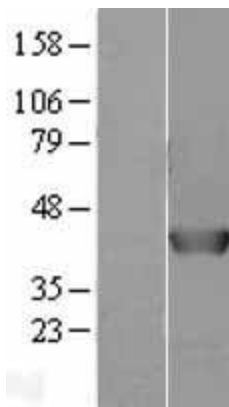
### Product images:



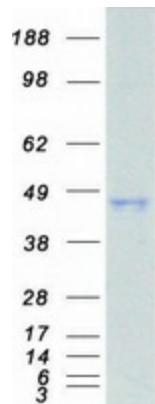
Circular map for RC201782



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AHSA1 (Cat# RC201782, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-AHSA1 (Cat# [TA808924])(1:2000). Positive lysates [LY402150] (100ug) and [LC402150] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402150]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201782 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AHSA1 protein (Cat# [TP301782]). The protein was produced from HEK293T cells transfected with AHSA1 cDNA clone (Cat# RC201782) using MegaTran 2.0 (Cat# [TT210002]).