

## Product datasheet for RN204715

### Aars2 (NM\_001106891) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Aars2 (NM\_001106891) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Aars2  
**Synonyms:** Aarsl; AlaRS  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >RN204715 representing NM\_001106891  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGGCGTCAGTGGCTGCTGCGGCCGGGAGGCTGCGGCAGCCATTGGGAGGTCGTGCCCATGGCAGC  
 GGTTCCTAACCGAGCCCCACCCACCCACGGAGCGCCGTCGCGGACGCCTTCTGAGCTTCTCCGAGA  
 TCGCCACGGCCACCGGCTCGTGCCCTCCGTTCCGTGAGGCCGCGCGGACCCAGCCTGCTTTTCGTC  
 AACGCAGGCATGAACCAGTTCAAGCCCATCTTCTGGGCACGGTGGATCCACGAAGCGAGATGGCAGGCT  
 TCCGACGAGTAGCTAACAGCCAGAAATGTGTCAGGGCTGGAGGACGCCATAACGACCTGGAAGATGTGGG  
 CCGTGATCTCTCATCATACTTTTTTTGAGATGCTTGGCAACTGGGCTTTTGGGGTGAATATTTTAAG  
 AAAGAAGCATGTAGCATGGCCTGGGAAGTGTGACTCAAGTCTATGGGATCCCTGAGGACAGGTTATGGG  
 TCTCCTATTTTCAAGTGGTACTCCAAGACAGGGTTGGACCCAGACCTGGAGACCAGAGACATCTGGCTCAG  
 CTTGGGGGTACCTGCCAGCCGTGTGCTCTCGTTCGGACTGCAAGAGAACTTCTGGGAGATGGGAGACACC  
 GGACCTTGTGGCCTTGTACCGAGATCCATTACGATCTGGTGGTGAATGGGACCCCCCAGCTGGTTG  
 AGCTATGGAATCTGGTCTTCATGCAACACTACAGAGAGGCAGCGAAGCCTGCATCTGCTGCCACAGCA  
 ACATGTGGACACAGGAATGGGCCTGGAAAGACTGGTGGCTGACTGCAGGCAAGCATTCCACCTACGAC  
 ACCGACCTCTTTTCTCCACTGCTTGATGTATACACCAGAGCTGCAGGGTCCCCCGTACTCTGGCCGCG  
 TAGGGGACGCGGATGAGGGACGAATAGACACAGCGTACCGAGTTGTAGCTGATCATACCCGACGCTCAG  
 TGTCTGCATTGCTGATGGCGTCTCCCCGGGATGTCAGGCGCCCCGCTAGTTCTTCGTCGGATTCTCCGT  
 CGAGCTGTGCGCTATTCCACAGAGGCTTGCAGGCACCACCTGGCTTTCTGGCAACCTGGTACCAGTGG  
 TGGTGGCGACATTGGGAGCTGCTTACCCAGAATTCAGAAAGTTCAGTCAAGGTATTGATCTGGGAGAT  
 AGCCAACCTGGTGTGAGGATGAGGCAGCCTTCTGGCCTCCCTGCAGAGAGGCCGTCGGATCATTGAT  
 CGCACCGTTAAGCGCTTGGGCCCTTCTGATTTGTTCCCTGCCAAGTGGCCTGGTCACTGTCACTGTCTG  
 GGAATCTGGGGATCCCCCTGGACCTGGTGCAGCTAATGTTGGAGGAGAAGGGGGTGAAGCTGGACTGCG  
 GGGCCTGGAGCAGCTAGCCCAGAAGGAAGCCAGCACCGGGCCAGCAGGCGAGGACAGCTCAGGAGGAG  
 GGATTGTGCTTGTGATGTCCACGCACTGGAGGAGCTGCACCGTCAAGGCATACCCACAACCTGATGACAGCC



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CCAAATATAACTACTCTCTTCGCCCAATGGGGATTATGAGTTTGGCCTCTGTGAGGCCAGGTATTACA  
GCTGTATTAGAGACTGGGACAGCTGTGGCCTCCGTGGGAGAAGGCCAGCGCTGTGGCCTCTATTGGAC  
AGAACCAACTTCTATGCTGAACAAGGGGTCAGGCTTCGGACCGAGGCTACCTCATTTCGTACAGGGCAGC  
AGGATGTGTTGTTCCCTGTGGCCCGGGCTCAGGCTGTGGAGGCTTCATCCTGCATGAGGCCATGGCTCC  
CGAGTGCTACAAGTCGGGGACCGAGTGCAGCTCTATGTGGATAAGGCCTGGCGAATGGGATGCATGGTG  
AAGCACACAGCCACCCACCTGCTGAACGGGCACTTCGGCAGACGCTCGGACCAACCACCGAACAGCGGG  
GCTCCCATCTCAACCCGGAGCGGCTGCGCTTTGATGTGGCCACGCAGACCCCACTGACCACAGAGCAGCT  
ACGGACAGTAGAGAGCTACGTGCAGGAAGCTGTGGGGCAGGATAAGCCTGTATACATGGAGGAAGTGCCC  
CTGGCACACACTGCCCGTATCCCGGCCTTCGCTCACTGGATGAGGTGTACCCAGACCCCGTTCCGGTCCG  
TGTGAGTGGGGTTCCTGTGGCCAGGCACTGGCACCAGCCTCCCAAGCTGCACTGCAGACTTCGGTGGA  
GCTGTGCTGCGGGACGCACCTGCTAAGTACTGGGGCTGTGGGAGACCTGGTGATTATTGGGGATCGCCAG  
CTGGTCAAAGGCATCACTCGCTACTGGCCATCACCGGGAGCAGGCCAACAGGCCCGAGAGGTGGGCC  
AGAGCCTGTCGCAGGAGGTGGAAGTGGCAAGCGAAGCGCTAAGTCGGGGCAGCCGGACCTGCTGGAGGC  
TCACCGGCTATCTAAGGACATAGGACGCTCATTGAGTTCACAGAGTCTGCTGTGATACCTCAGTGGCAG  
CGGCAGGAGCAGCAGACCACACTGAAGATGCTACAGCGCCGTGCCAACACCGCCATCCGGAAACTGGAGA  
AGAGCCAGGCTACGGAGAAATCCAGGAGCTGTTGAAACGGCACTCGGAGGGGCCCTGATTGTGGACAC  
TGCTCCGCCAGTCCCTCTCGGTGCTGGTAAAGGTGCTGCGGCAGCTGTGCAAACAGGCCCCAGCATG  
TCCGTGCTGCTGCTCAGCCCCAGCCACTGGCAGTGTCTGTGTGCCTGCCAGGTGGCCAGGGTGCCA  
CACCTACCTTCACAGTGAAGCTGGGCCCTAGCTGTGTGCAGCCACATGGGAGGCAAGGCTTGGGGCTC  
TCCAGTGATAGCCAGGGTACTGGACACACTGCTGACCTGGAGGCTGCCCTCAGGACAGCCCGAGCTTAT  
GCACTCAACCAGCTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_001106891

**Insert Size:** 2958 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\_001106891.1, NP\_001100361.1

**RefSeq Size:** 3323 bp

**RefSeq ORF:** 2958 bp

**Locus ID:** 301254

UniProt ID: [D3ZX08](#)

Cytogenetics: 9q12

Gene Summary: Catalyzes the attachment of alanine to tRNA(Ala) in a two-step reaction: alanine is first activated by ATP to form Ala-AMP and then transferred to the acceptor end of tRNA(Ala). Also edits incorrectly charged tRNA(Ala) via its editing domain.[UniProtKB/Swiss-Prot Function]