

Product datasheet for **RG232750**

HARS1 (NM_001258042) Human Tagged ORF Clone

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | HARS1 (NM_001258042) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | HARS1 |
| Synonyms: | CMT2W; HARS; HRS; USH3B |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG232750 representing NM_001258042
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGCAGAGCGTGC GGCGCTGGAGGAGCTGGTGA AACTTCAGGGAGAGCGCGTGC GAGGCCCTCAAGCAGC
 AGAAGGCCAGCGCCGAGCTGATCGAGGAGGAGGTGGCGAAACTCCTGAAACTGAAGGCACAGCTGGGTCC
 TGATGAAAGCAAACAGAAATTTGTGCTCAAACCCCAAGGAAACTGATGGGAAAGTATGGGGAAGAC
 TCCAAGCTTATCTATGACCTGAAGGACCAGGGCGGGGAGCTCCTGTCCCTTCGCTATGACCTCACTGTTC
 CTTTTGCTCGGTATTTGGCAATGAATAA AACTGACCAACATTAACGCTACCACATAGCAAAGGATTTTGA
 CATTGCTGGGAAC TTTGATCCCATGATCCCTGATGCAGAGTGCCTGAAGATCATGTGCGAGATCCTGAGT
 TCACTTCAGATAGGCGACTTCTGGTCAAGGTAACGATCGACGCATTCTAGATGGGATGTTTGCTATCT
 GTGGTGTTCGACAGCAAGTCCGTACCATCTGCTCCTCAGTAGACAAGCTGGACAAGGTGCTCGGGA
 AGAGGTGAAGAATGAGATGGTGGGAGAGAAGGGCCTTGACCTGAGGTGGCTGACCGCATTGGGGACTAT
 GTCCAGCAACATGGTGGGTATCCCTGGTGAACAGCTGCTCCAGGATCCTAAACTATCCCAAAACAAGC
 AGGCCTTGGAGGGCCTGGGAGACCTGAAGTTGCTCTTTGAGTACCTGACCCATTTGGCATTGATGACAA
 AATCTCCTTTGACCTGAGCCTTGCTCGAGGGCTGGATTACTACTGGGGTATCTATGAGGCAGTGTG
 CTACAGACCCAGCCAGGCAGGGGAAGAGCCCTGGGTGTGGGCAGTGTGGCTGCTGGAGGACGCATG
 ATGGGCTAGTGGGCATGTTCCAGCCAAAGGGCGCAAGGTGCCATGTGTGGGGCTCAGCATTGGGGTGA
 GCGGATTTTCCATCGTGAACAGAGACTAGAGGCTTTGGAGGAGAAGATACGGACCACGGAGACACAG
 GTGCTTGTGGCATCTGCACAGAAGAAGCTGCTAGAGGAAAGACTAAAGCTTGTCTCAGAACTGTGGGATG
 CTGGGATCAAGGCTGAGCTGCTGTACAAGAAGAACCCAAAGCTACTGAACCAGTTACAGTACTGTGAGGA
 GCGAGGCATCCCACTGGTGGCTATCATCGGCGAGCAGGAACTCAAGGATGGGGTATCAAGCTCCGTTCA
 GTGACGAGCAGGGAAGAGGTGGATGTCCGAAGAGAAGACCTTGTGGAGGAAATCAAAGGAGAACAGGCC
 AGCCCTCTGCATCTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG232750 representing NM_001258042
 Red=Cloning site Green=Tags(s)

MAERAAL EELVKLQGERVRGLKQKASAE LIEEEVAKLLKKAQLGPDESKQK FVLKTPKETLMGKYGED
 SKLIYDLKDQGGELL S LRYDLTVPFARYLAMNKL T NIKRYHIAKDFDIAGNFDP MIPDAECLKIMCEILS
 SLQIGDFLVKVNDRRILDGMFAICGVSDSKFRTICSSVDKLDKVSWEVKNEMVGEKGLAPEVADRIGDY
 VQQHGGVSLVEQLLQDPKLSQNKQALEGLGDLKLLFEYLT LFGIDDKISFDLSLARGLDYTTGVIYEA VL
 LQTPAQAGEEPLGVGSVAAGGRYDGLVGMFDPKGRKVP CVGLSIGVERIFSIVEQRLEALEEKIRT TETQ
 VLVASAQKLL EERLKL VSELWDAGIKAELLYKNPKLLNQLQYCEEAGIPLVAIIGEQLKDGVIK LRS
 VTSREEVDVRREDLV EEEKRRTGQPLCIC

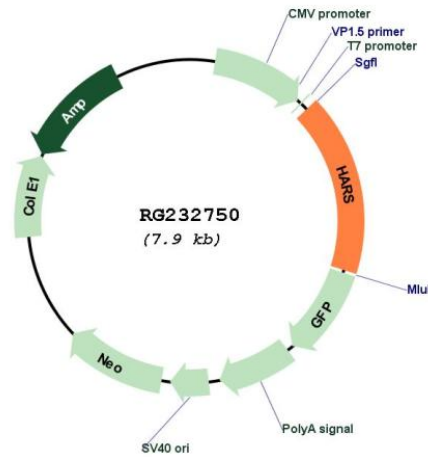
TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:

ACCN: NM_001258042

ORF Size: 1347 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.

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| 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: | <ol style="list-style-type: none">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: | <u>NM_001258042.2</u> , <u>NP_001244971.1</u> |
| RefSeq Size: | 2142 bp |
| RefSeq ORF: | 1350 bp |
| Locus ID: | 3035 |
| UniProt ID: | <u>P12081</u> |
| Cytogenetics: | 5q31.3 |
| Protein Pathways: | Aminoacyl-tRNA biosynthesis |
| Gene Summary: | Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. The protein encoded by this gene is a cytoplasmic enzyme which belongs to the class II family of aminoacyl-tRNA synthetases. The enzyme is responsible for the synthesis of histidyl-transfer RNA, which is essential for the incorporation of histidine into proteins. The gene is located in a head-to-head orientation with HARSL on chromosome five, where the homologous genes share a bidirectional promoter. The gene product is a frequent target of autoantibodies in the human autoimmune disease polymyositis/dermatomyositis. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012] |