

Product datasheet for **RG232843**

HARS1 (NM_001258041) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HARS1 (NM_001258041) 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:

>RG232843 representing NM_001258041
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGAGCGTGCAGCGCTGGAGGAGCTGGTGAACCTCAGGGAGAGCGCGTGCAGGCGCTCAAGCAGC
 AGAAGGCCAGCGCCGAGCTGATCGAGGAGGAGGTGGCGAACTCCTGAACTGAAGGCACAGCTGGGTCC
 TGATGAAAGCAAACAGAAATTTGTGCTCAAACCCCAAGGGCACAAGAGACTATAGTCCCCGGCAGATG
 GCAGTTCGCGAGAAGGTGTTGACGTAATCATCCGTTGCTTCAAGCGCCACGGTGCAGAAGTCATTGATA
 CACCTGTATTTGAACTAAAGGAACTGATGGGAAAGTATGGGGAAGACTCCAAGCTTATCTATGACCT
 GAAGGACCAGGGCGGGGAGCTCCTGTCCCTTCGCTATGACCTCACTGTTCCCTTTTCTCGGTATTTGGCA
 ATGAATAAACTGACCAACATTAACGCTACCACATAGCAAAGGATTTTGACATTGCTGGGAACTTTGATC
 CCATGATCCCTGATGCAGAGTGCCTGAAGATCATGTGCGAGATCCTGAGTTCACCTCAGATAGGCGACTT
 CCTGGTCAAGGTAACGATCGACGACTTCTAGATGGGATGTTTGTATCTGTGGTGTCTGACAGCAAG
 TTCCGTACCATCTGCTCCCTCAGTAGACAAGCTGGACAAGGTGTCCTGGGAAGAGGTGAAGAATGAGATGG
 TGGGAGAGAAGGGCCTTGACCTGAGGTGGCTGACCGCATTGGGGACTATGTCCAGCAACATGGTGGGGT
 ATCCCTGGTGGAAACAGCTGCTCCAGGATCCTAACTATCCAAAACAAGCAGGCCTTGGAGGGCCTGGGA
 GACCTGAAGTTGCTCTTTGAGTACCTGACCCTATTTGGCATTGATGACAAAATCTCCTTTGACCTGAGCC
 TTGCTCGAGGGCTGGATTACTACACTGGGGTGTCTATGAGGCAGTGTCTACAGACCCAGCCAGGC
 AGGGGAAGAGCCCTGGGTGTGGCAGTGTGGCTGCTGGAGGACGCTATGATGGGCTAGTGGGATGTTT
 GACCCAAAGGGCGCAAGGTGCCATGTGTGGGCTCAGCATTGGGGTGGAGCGGATTTTCTCCATCGTGG
 AACAGAGACTAGAGGCTTTGGAGGAGAAGATACGGACCACGAGACACAGGTGCTTGTGGCATCTGCACA
 GAAGAAGCTGCTAGAGGAAAGACTAAAGCTTGTCTCAGAAGTGTGGGATGCTGGGATCAAGCTGAGCTG
 CTGTACAAGAAGAACCCTAAAGCTACTGAACAGTTACAGTACTGTGAGGAGGCAGGCATCCCACTGGTGG
 CTATCATCGGCGAGCAGGAACTCAAGGATGGGGTCACTCAAGCTCCGTTCAAGTACGAGCAGGGAAGAGGT
 GGATGTCCGAAGAGAAGACCTTGTGGAGGAAATCAAAGGAGAACAGGCCAGCCCTCTGCATCTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG232843 representing NM_001258041
 Red=Cloning site Green=Tags(s)

MAERAAL EELVKLQGERVRLKQKASAELEIEEVAKLLKKAQLGPDESKQKFLKTPKTRDYSRQMA
 AVREKVFVDVIRCFKRHGAVIDTPVFELKELTMGKYGEDSKLYDLKDQGGELLSLRYDLTVPFARYLA
 MNKLTNIKRYHIAKDFDIAGNFDPMIPDAECLKIMCEILSSLQIGDFLVKVNDRRILDMFAICGVSDSK
 FRTICSSVDKLDKVSWEVKNEMVGEKGLAPEVADRIGDYVQHGGSLSLVEQLLQDPKLSQNKQALEGLG
 DLKLLFEYLTFLFGIDDKISFDLSLARGLDYYTGVIYEAVLLQTPAQAGEEPLGVGVAAGGRYDGLVGMF
 DPKGRKVPVGLSIGVERIFSIVEQRLEALEEKIRTTETQVLVASAQKLLLEERLKLVSSELWDAGIKAEL
 LYKKNPKLLNQLQYCEEAGIPLVAIIGEQLKDGVIKLRSVTSREEVDVRRREDLVEEIKRRTGQPLCIC

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

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_001258041.2](#), [NP_001244970.1](#)

RefSeq Size: 2262 bp

RefSeq ORF: 1470 bp

Locus ID: 3035

UniProt ID: [P12081](#)

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]