

Product datasheet for **RG204925**

HARS2 (NM_012208) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HARS2 (NM_012208) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HARS2
Synonyms:	HARSL; HARSR; HisRS; HO3; PRLTS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG204925 representing NM_012208
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCCTGCTCGGACTTCTCCAGGAGGCGCTGGGCTTCGCTGCTCAGCCAGCTCCTGCGACCGCCCT
 GCGCTTCGTGCACCGGGCGGTCCGTTGCCAAAGCCAGGTTGCAGAGGCAGTGTTAACATCCCAACTGAA
 AGCACATCAAGAGAAACCAAATTTTATTATCAAGACCCCAAAGGTACCAGGGATCTTAGTCCTCAGCAT
 ATGTTGTGAGGGAGAAAATTCTTGATTTGGTTATCAGCTGCTTTAAACGTCATGGAGCAAAGGGGATGG
 ACACCCAGCATTTGAGCTGAAGGAAACCTGACTGAGAAGTATGGAGAGGACTCTGGGCTCATGTATGA
 TCTGAAGGATCAAGGTGGAGAGCTGTTGCCCTCCGCTATGACCTTACTGTTCCCTTTGCTGTTATCTG
 GCCATGAATAAGGTGAAGAAGATGAAACGTTATCATGTTGAAAGGTGTGGCGGCAGAGAGCCCAACCA
 TAGTCCAAGGCCGTTATAGGGAGTCTGCCAGTGTGATTTGACATTGCTGGTCAGTTTGACCCTATGAT
 CCCCAGTGCAGAGTGTTGAAGATCATGTGTGAAATCCTAAGTGGATTGCAGTTGGGAGACTTTCTCATT
 AAGGTAATGACCGGCGGATTGTGGATGGGATGTTTGTCTGTGTTGCTGCTGAAAGCAAGTTCGGTG
 CCATCTGCTCCTCCATAGATAAACTAGACAAGATGGCTTGAAAGATGTGAGACATGAGATGGTGGTGAA
 GAAAGGCTGGCTCCTGAGGTGGCTGATCGAATTGGGGACTATGTCCAGTGTGATGGTGGGGTATCCCTA
 GTAGAGCAAATGTTTCAGGATCCAGACTATCCAGAACAAGCAGGCCCTGGAGGGCCTGGGAGACCTAA
 AGCTGCTATTTGAATACCTGACTTTATTTGGAATTGCTGATAAGATCTCCTTTGACCTCAGCCTGGCTCG
 GGGCTAGACTACTATACAGGAGTATCATGAAGCAGTGTCTGCAGACCCCAACTCAGGCTGGGAG
 GAGCCCCGAATGTGGGCAGTGTGGCTGCTGGTGGCGCTATGATGGCTGGTGGCATGTTTGACCCCA
 AGGGCCACAAGGTGCCATGTGTGGGACTCAGCATTGGGTTGAGCGAATCTTCTACATTGTGGAGCAGAG
 GATGAAGACCAAAGGTGAGAAGGTGCGGACTACAGAGACTCAAGTGTTTGTGGCCACACCACAGAAGAAC
 TTTCTCCAAGAACGTTGAAGCTTATTGACAGCTTTGGGATTCTGGAATCAAGGCAGAGATGCTATACA
 AGAACAACCCCAAATTAACCCAGCTGCACTATTGTGAGAGCACAGGCATTCCACTGGTGGTCATTAT
 TGGTGAGCAAGAAGTAAAGAAGGGTCAAGATCCGTTCAAGTGGCCAGCAGAGAGGAGGTGGCCATT
 AAACGGGAAAATTTGTGGCTGAAATTCAGAAGCGACTGTCTGAGTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG204925 representing NM_012208
 Red=Cloning site Green=Tags(s)

MPLLGLLPRRAWASLLSQLLRPPCASCTGAVRCQSQVAEAVLTSQLKAHQEKPNFIIKTPKGTDRDLSQPH
 MVVREKILDLVISCFKRHGAKGMDTPAFELKELTEKYGEDSGLMYDLKDQGGELLSLRYDLTVPFARYL
 AMNKVKKMKRYHVGKVVRRRESPTIVQGRYREFCQCFDIAQGFDPMPDAECLKIMCEILSGLQLGDFLI
 KVNDRIVDGMFAVCGVPESKFRAICSSIDKLDKMAWKDVRHEMVVKKGLAPEVADRIGDYVQCHGGVSL
 VEQMFQDPRLSQNKQALEGLGDLKLLFEYLTFLFGIADKISFDLSLARGLDYYTGVIYEAVLLQTPTQAGE
 EPLNVGSAAGGRYDGLVGMFDPKGHKVPVGLSIGVERIFYIVEQRMKTKGEKVRTTETQVFVATPQKN
 FLQERLKLIAELWDSGIKAEMLYKNNPKLLTQLHYCESTGIPLVVIIGEQLKEGVKIRSVASREEVAI
 KRENFVAEIQRLSES

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_012208

ORF Size: 1518 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_012208.4](#)

RefSeq Size: 2508 bp

RefSeq ORF: 1521 bp

Locus ID: 23438

UniProt ID: [P49590](#)

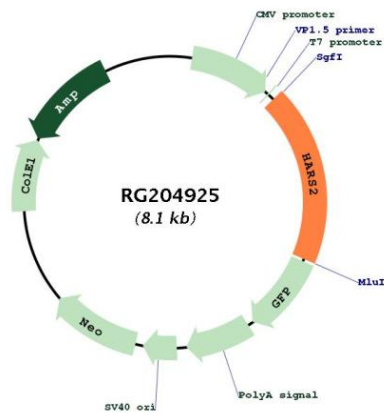
Cytogenetics: 5q31.3

Domains: tRNA-synt_2b, HGTP_anticondon

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 an enzyme belonging to the class II family of aminoacyl-tRNA synthetases. Functioning in the synthesis of histidyl-transfer RNA, the enzyme plays an accessory role in the regulation of protein biosynthesis. The gene is located in a head-to-head orientation with HARS on chromosome five, where the homologous genes likely share a bidirectional promoter. Mutations in this gene are associated with the pathogenesis of Perrault syndrome, which involves ovarian dysgenesis and sensorineural hearing loss. Alternative splicing results in multiple transcript variants of this gene. [provided by RefSeq, Jul 2013]

Product images:



Circular map for RG204925