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Product datasheet for RC238483

HARS2 (NM_001278731) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HARS2 (NM_001278731) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HARS2
Synonyms:	HARSL; HARSR; HisRS; HO3; PRLTS2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin

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ORF Nucleotide Sequence:

>RC238483 representing NM_001278731
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCCTGCTCGGACTTCTTCCCAGGAGGGCCTGGGCTTCGCTGCTCAGCCAGCTCCTGCGACCGCCCT
GCGCTTCGTGCACCGGGGCGGTCCGTTGCCAAAGCCAGGGTACCAGGGATCTTAGTCCTCAGCATATGGT
TGTGAGGGAGAAAATTCTTGATTTGGTTATCAGCTGCTTTAAACGTCATGGAGCAAAGGGGATGGACACC
CCAGCATTTGAGCTGAAGGAAACCCTGACTGAGAAGTATGGAGAGGACTCTGGGCTCATGTATGATCTGA
AGGATCAAGGTGGAGAGCTGTTGTCCCTCCGCTATGACCTTACTGTTCCCTTTGCTCGTTATCTGGCCAT
GAATAAGGTGAAGAAGATGAAACGTTATCATGTTGGAAAGGTGTGGCGGCGAGAGAGCCCAACCATAGTC
CAAGGCCGTTATAGGGAGTTCTGCCAGTGTGATTTTGACATTGCTGGTCAGTTTGACCCTATGATCCCCG
ATGCAGAGTGTTTGAAGATCATGTGTGAAATCCTAAGTGGATTGCAGTTGGGAGACTTTCTCATTAAGGT
AAATGACCGGCGGATTGTGGATGGGATGTTTGCTGTCTGTGGTGTTCCTGAAAGCAAGTTCCGTGCCATC
TGCTCCTCCATAGATAAACTAGACAAGATGGCTTGGAAAGATGTGAGACATGAGATGGTGGTGAAGAAAG
GCCTGGCTCCTGAGGTGGCTGATCGAATTGGGGACTATGTCCAGTGTCATGGTGGGGTATCCCTAGTAGA
GCAAATGTTTCAGGATCCCAGACTATCCCAGAACAAGCAGGCCCTGGAGGGCCTGGGAGACCTAAAGCTG
CTATTTGAATACCTGACTTTATTTGGAATTGCTGATAAGATCTCCTTTGACCTCAGCCTGGCTCGGGGCC
TAGACTACTATACAGGAGTGATCTATGAAGCAGTGCTGCTGCAGACCCCAACTCAGGCTGGGGAGGAGCC
CCTGAATGTGGGCAGTGTGGCTGCTGGTGGGCGCTATGATGGGCTGGTGGGCATGTTTGACCCCAAGGGC
CACAAGGTGCCATGTGTGGGACTCAGCATTGGGGTTGAGCGAATCTTCTACATTGTGGAGCAGAGGATGA
AGACCAAAGGTGAGAAGGTGCGGACTACAGAGACTCAAGTGTTTGTGGCCACACCACAGAAGAACTTTCT
CCAAGAACGGTTGAAGCTTATTGCAGAGCTTTGGGATTCTGGAATCAAGGCAGAGATGCTATACAAGAAC
AACCCCAAACTATTAACCCAGCTGCACTATTGTGAGAGCACAGGCATTCCACTGGTGGTCATTATTGGTG
AGCAAGAACTGAAAGAAGGGGTCATCAAGATCCGTTCAGTGGCCAGCAGAGAGGAGGTGGCCATTAAACG
GGAAAATTTTGTGGCTGAAATTCAGAAGCGACTGTCTGAGTCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

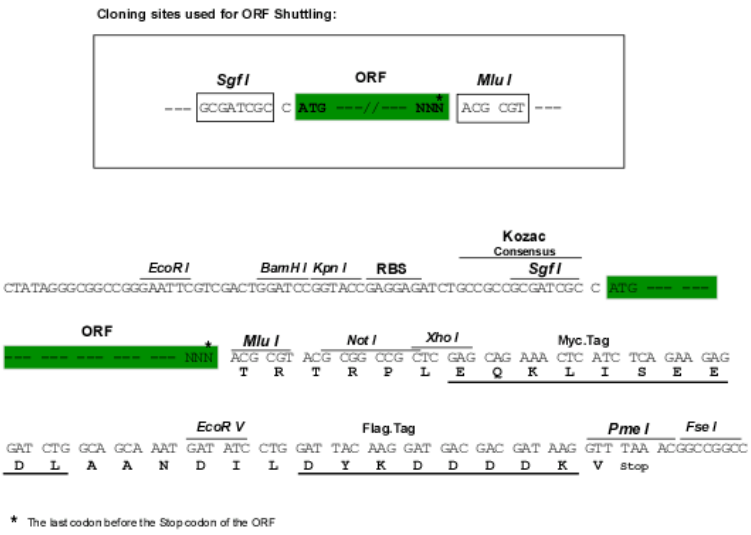
>RC238483 representing NM_001278731
Red=Cloning site Green=Tags(s)

MPLLGLLPRRAWASLLSQLLRPPCASCTGAVRCQSQGTRDLSPQHMVVREKILDLVISCFKRHGAKGMDT
PAFELKETLTEKYGEDSGLMYDLKDQGGELLSLRYDLTVPFARYLAMNKVKKMKRYHVGKVWRRESPTIV
QGRYREFCQCDFDIAGQFDPMIPDAECLKIMCEILSGLQLGDFLIKVNDRRIVDGMFAVCGVPESKFRAI
CSSIDKLDKMAWKDVRHEMVVKKGLAPEVADRIGDYVQCHGGVSLVEQMFQDPRLSQNKQALEGLGDLKL
LFEYLTLFGIADKISFDLSLARGLDYYTGVIYEAVLLQTPTQAGEEPLNVGSVAAGGRYDGLVGMFDPKG
HKVPCVGLSIGVERIFYIVEQRMKTKGEKVRTTETQVFVATPQKNFLQERLKLIAELWDSGIKAEMLYKN
NPKLLTQLHYCESTGIPLVVIIGEQELKEGVIKIRSVASREEVAIKRENFVAEIQKRLSES

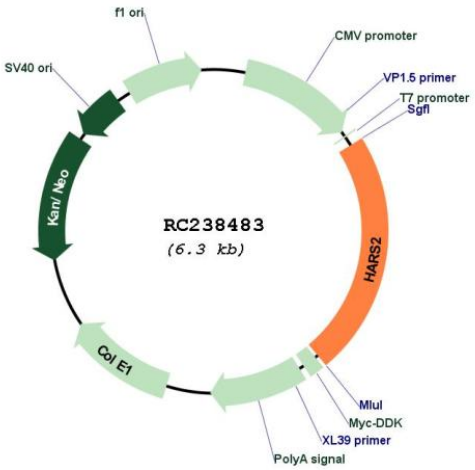
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001278731

ORF Size: 1443 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_001278731.2
RefSeq Size:	2440 bp
RefSeq ORF:	1446 bp
Locus ID:	23438
UniProt ID:	P49590
Cytogenetics:	5q31.3
Protein Pathways:	Aminoacyl-tRNA biosynthesis
MW:	54.6 kDa
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]