

Product datasheet for SC335622

HARS2 (NM_001278732) Human Untagged Clone

Product data:

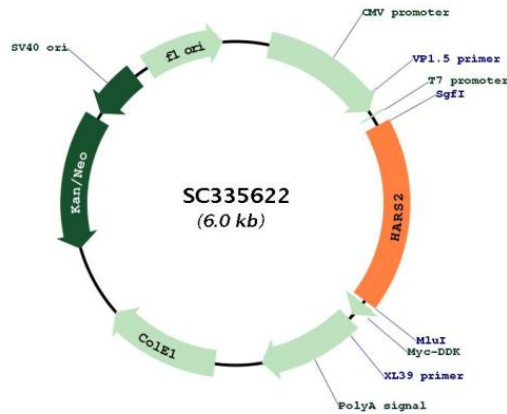
Product Type:	Expression Plasmids
Product Name:	HARS2 (NM_001278732) Human Untagged Clone
Tag:	Tag Free
Symbol:	HARS2
Synonyms:	HARSL; HARSR; HisRS; HO3; PRLTS2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC335622 representing NM_001278732. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGTTGTGAGGGAGAAAATTCTTGATTTGTTATCAGCTGCTTTAAACGTCATGGAGCAAAGGGGATG
GACACCCAGCATTTGAGCTGAAGGATTTGACATTGCTGGTCAGTTTGACCCTATGATCCCCGATGCA
GAGTGTGTTGAAGATCATGTGTGAAATCCTAAGTGGATTGCAGTTGGGAGACTTTCTCATTAAAGTAAAT
GACCGCGGATTGTGGATGGGATGTTTGCTGTCTGTGGTGTTCCTGAAAGCAAGTCCCGTCCATCTGC
TCCTCCATAGATAAACTAGACAAGATGGCTTGAAAGATGTGAGACATGAGATGGTGGTGAAGAAAGGC
CTGGCTCCTGAGGTGGCTGATCGAATTGGGGACTATGTCCAGTGTGATGGTGGGTATCCCTAGTAGAG
CAAATGTTTCAGGATCCCAGACTATCCCAGAACAAGCAGGCCCTGGAGGGCTGGGAGACCTAAAGCTG
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CCCCTGAATGTGGGCAGTGTGGCTGCTGGTGGGCGCTATGATGGGCTGGTGGCATGTTTGACCCCAAG
GGCCACAAGGTGCCATGTGTGGGACTCAGCATTGGGGTTGAGCGAATCTTCTACATTGTGGAGCAGAGG
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TTTCTCCAAGAACGGTTGAAGCTTATTGAGAGCTTTGGGATTCTGGAATCAAGGCAGAGATGCTATAC
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ATTAACGGGAAAATTTGTGGCTGAAATTCAGAACGACTGTCTGAGTCT TGA
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites: SgfI-MluI



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Plasmid Map:


ACCN: NM_001278732

Insert Size: 1089 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_001278732.1](#)

RefSeq Size: 2393 bp

RefSeq ORF: 1089 bp

Locus ID: 23438

UniProt ID: [P49590](#)

Cytogenetics: 5q31.3

Protein Pathways: Aminoacyl-tRNA biosynthesis

MW: 40.5 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]

Transcript Variant: This variant (3) uses an alternate splice site and lacks two alternate in-frame exons in the 5' coding region and initiates translation at a downstream start codon, compared to variant 1. It encodes isoform 3, which is shorter than isoform 1. This isoform (3) lacks the transit peptide present in isoforms 1 and 2, hence it is not likely to localize to the mitochondrion.