

## Product datasheet for RC201089

### valyl tRNA synthetase (VARS) (NM\_006295) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | valyl tRNA synthetase (VARS) (NM_006295) Human Tagged ORF Clone   |
| Tag:                      | Myc-DDK   |
| Symbol:                   | valyl tRNA synthetase   |
| Synonyms:                 | G7A; NDMSCA; VARS; VARS2  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >RC201089 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCACCCCTACGTCTCCCCTACCCAGATGCCTTCCCCAGCCTCCGAGCCCTCATAGCCGCTCGCT  
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GATAAGAAGGAGCTGACAGGTCGCACCCTGCTCTCCGTGCCTGGCTACAAGGAGAAGGTGGAGTTCGGGG  
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Protein Sequence: >RC201089 protein sequence  
 Red=Cloning site Green=Tags(s)

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HLGHAL TNAIQDSL TRWHRMRGETTL WNP GCDHAGIATQVVVEKKL WREQLSRHLQGREAFLEQVWKWK
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TGRLPFREVYLAIVRDAHGRKMSKSLGNVIDPLDVIYGISLQGLHNQLLNSNLDPSEVEKAKEGQKADF
PAGIPECGTDALRFGLCAYMSQGRDINLDVNRILGYRHFCNKLWNATK FALRGLGKGFVPSP TSPQGHE
SLVDRWIRSRLEAVRLSNQGFQAYDFPAVTTAQYSFWLYELCDVYLECLKPVLNGVDQVA AEARQ TLY
TCLDVGLRLLSPFMPFVTEELFQRLPRRMPQAPP SLCVTPYPEPESECSWKDPEAEAALELALSITRAVRS
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QKML
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6680\\_b08.zip](https://cdn.origene.com/chromatograms/mk6680_b08.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

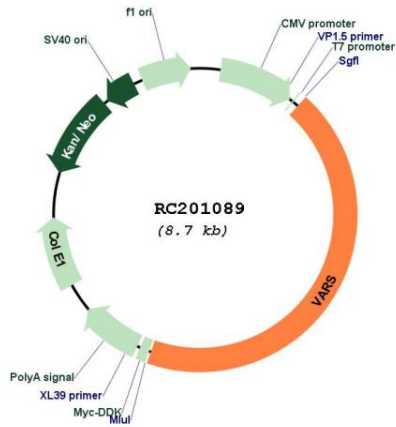


ACCN: NM\_006295

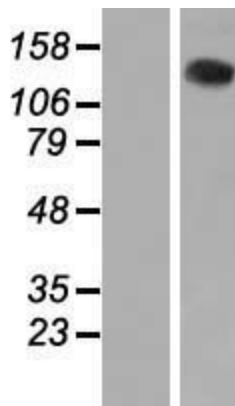
ORF Size: 3792 bp

|                               |   |
|-------------------------------|---|
| <b>OTI Disclaimer:</b>        | 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. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | 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).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol> |
| <b>RefSeq:</b>                | <a href="#">NM_006295.3</a>   |
| <b>RefSeq Size:</b>           | 4308 bp   |
| <b>RefSeq ORF:</b>            | 3795 bp   |
| <b>Locus ID:</b>              | 7407  |
| <b>UniProt ID:</b>            | <a href="#">P26640</a>  |
| <b>Cytogenetics:</b>          | 6p21.33   |
| <b>Protein Families:</b>      | Druggable Genome  |
| <b>Protein Pathways:</b>      | Aminoacyl-tRNA biosynthesis, Valine, leucine and isoleucine biosynthesis  |
| <b>MW:</b>                    | 140.5 kDa   |
| <b>Gene Summary:</b>          | Aminoacyl-tRNA synthetases catalyze the aminoacylation of tRNA by their cognate amino acid. Because of their central role in linking amino acids with nucleotide triplets contained in tRNAs, aminoacyl-tRNA synthetases are thought to be among the first proteins that appeared in evolution. The protein encoded by this gene belongs to class-I aminoacyl-tRNA synthetase family and is located in the class III region of the major histocompatibility complex. [provided by RefSeq, Jul 2008]               |

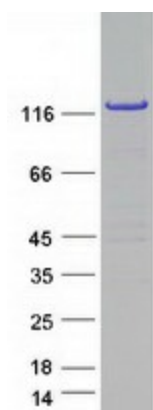
Product images:



Circular map for RC201089



Western blot validation of overexpression lysate (Cat# [LY416738]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201089 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VARS protein (Cat# [TP301089]). The protein was produced from HEK293T cells transfected with VARS cDNA clone (Cat# RC201089) using MegaTran 2.0 (Cat# [TT210002]).