

Product datasheet for **RC208448**

WARS2 (NM_015836) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	WARS2 (NM_015836) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	WARS2
Synonyms:	mtTrpRS; NEMMLAS; TrpRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208448 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCTGCACTCAATGCGAAAGCGCGTGAGCGCTGGAGTTCATCCGGGCACTTCATAAGGGATCCG
CAGCTGCTCCCGCTCTCCAGAAAGACAGCAAGAAGCGAGTATTTCCGGCATTCAACCTACAGGAATCCT
CCACCTGAGCAATTACCTGGGAGCCATTGAGAGCTGGGTGAGGTTACAGGATGAATATGACTCTGTATTA
TACAGCATTGTTGACCTCACTCCATTACTGTCCCAAGACCCAGCTGTCTTCGGCAGAGCATCTGG
ACATGACTGCTGTTCTTCTTGCCTGTGGCATAAACCCGAAAAAAGCATCCTTTTCCAACAATCTCAGGT
GTCTGAACACACACAATTAAGTTGGATCCTTTCTGCATGGTCAGACTACCTCGATTACAACATTTACAT
CAGTGGAAAGCAAAGACTACCAAGCAGAAGCAGATGGCACGGTGGCCCTGCTCACATACCCAGTACTCC
AGGCAGCCGACATTCTGTGTACAAGTCCACACACGTTCTGTTGGGGAGGATCAAGTCCAGCACATGGA
ACTAGTTCAGGATCTAGCACAAGTTCACAAGAAGTATGGGGAGTCTTTCCAGTGCCCGAGTCCATT
CTCACATCCATGAAGAAGTAAAATCCCTACGTGATCCTTCTGCCAAAATGTCGAAATCAGACCCGACA
AACTGGCCACCGTCCGAATAACAGACAGCCAGAGGAGATAGTGCAGAAATCCGCAAGGCTGTGACAGA
CTTCACCTCGGAGGTCACCTATGACCCGGCTGGCCGCGTGGCGTGTCCAACATAGTGGCGGTGCATGCC
GCGGTGACGGGGCTCTCCGTGGAGGAAGTGGTGCGCCGAGCGGGCATGAACACTGCTCGTACAAGC
TGGCCGTGGCAGATGCTGTGATTGAGAAGTTTGCCCAATTAAGCGTGAAATTGAAAACTGAAGCTGGA
CAAGGACATTTAGAGAAGTTTTACAATTTGGATCAGCAAAAAGCCAAAGAATTAGCATACACTGTGTGC
CAGGAGGTGAAGAAATTTGGTGGGTTTTCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC208448 protein sequence
Red=Cloning site Green=Tags(s)

MALHSMRKARERWSFIRALHKGSAAPALQKDSKRVFSGIQPTGILHLSNYLGAIESWVRLQDEYDSVL
 YSIVDLHSITVPQDPAVLRQSIIDMTAVLLACGINPEKSILFQSQVSEHTQLSWILSCMVRLPRLQHLH
 QWKAKTTKQKHDGTVGLLTYPVLQAADILLYKSTHVPVGEDQVQHMLVQDLAQGFNKKYGEFFPVPESI
 L TSMKKVKSLRDP SAKMSKSDPKLATVRITDSPEEIVQKFRKAVTDF TSEVYDPA GRAGVSNIVAVHA
 AVTGLSVEEVRRSAGMNTARYKLA VADAVIEKF APIKREIEK LDKDHLEKVLQIGSAKAKELAYTVC
 QEVK KLVGFL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6346_b02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_015836

ORF Size: 1080 bp

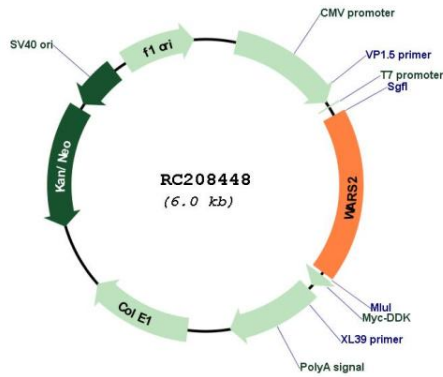
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

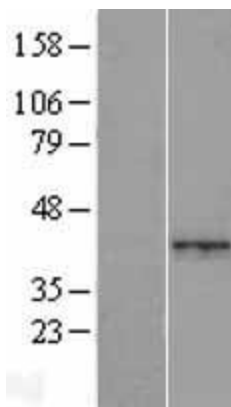
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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_015836.4
RefSeq Size:	2806 bp
RefSeq ORF:	1083 bp
Locus ID:	10352
UniProt ID:	Q9UGM6
Cytogenetics:	1p12
Domains:	tRNA-synt_1b
Protein Families:	Druggable Genome
Protein Pathways:	Aminoacyl-tRNA biosynthesis, Tryptophan metabolism
MW:	40.2 kDa
Gene Summary:	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. Two forms of tryptophanyl-tRNA synthetase exist, a cytoplasmic form, named WARS, and a mitochondrial form, named WARS2. This gene encodes the mitochondrial tryptophanyl-tRNA synthetase. Two alternative transcripts encoding different isoforms have been described. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC208448



Western blot validation of overexpression lysate (Cat# [LY414366]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208448 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).