

Product datasheet for **RC218539**

Tryptophanyl tRNA synthetase (WARS) (NM_213645) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Tryptophanyl tRNA synthetase (WARS) (NM_213645) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	WARS1
Synonyms:	GAMMA-2; HMN9; IFI53; IFP53; WARS
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC218539 representing NM_213645
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCAACAGTGAGCCGCATCTCTGCTGGAGCTGTTCAACAGCATCGCCACACAAGGGGAGCTCGTAA
 GGTCCTCAAAGCGGAAATGCGTCAAAGGATGAAATTGATTCTGCAGTAAAGATGTTGGTGCATTAAA
 AATGAGCTACAAAGCTGCCGCGGGGAGGATTACAAGGCTGACTGTCTCCAGGGAACCCAGCACCTACC
 AGTAATCATGGCCAGATGCCACAGAAGCTGAAGAGGATTTTGTGGACCCATGGACAGTACAGACAAGCA
 GTGCAAAAGGCATAGACTACGATAAGCTCATTGTTTCGGTTTGGAAAGTAGTAAAATTGACAAAAGAGCTAAT
 AAACCGAATAGAGAGAGCCACCGGCCAAAGACCACCACTTCTGCGCAGAGGCATCTTCTTCACAC
 AGAGATATGAATCAGGTTCTTGATGCCTATGAAAATAAGAAGCCATTTTATCTGTACACGGGCCGGGGCC
 CCTCTTCTGAAGCAATGCATGTAGGTACCTCATTCCATTTATTTTACAAAAGTGGCTCCAGGATGTATT
 TAACGTGCCCTTGGTCATCCAGATGACGGATGACGAGAAGTATCTGTGGAAGGACCTGACCTGGACCAG
 GCCTATAGCTATGCTGTGGAGAATGCCAAGGACATCATCGCTGTGGCTTTGACATCAACAAGACTTTCA
 TATTCTCTGACCTGGACTACATGGGGATGAGCTCAGGTTTCTACAAAAATGTGGTGAAGATTCAAAAGCA
 TGTTACCTTCAACCAAGTAAAAGGCATTTTCGGCTTCACTGACAGCGACTGCATTGGGAAGATCAGTTTT
 CCTGCCATCCAGGCTGCTCCCTCCTCAGCAACTATTCCACAGATCTTCCGAGACAGGACGGATATCC
 AGTGCCTTATCCCATGTGCCATTGACCAGGATCCTTACTTTAGAATGACAAGGGACGTCGCCCCAGGAT
 CGGCTATCCTAAACCAGCCCTGCTGCACTCCACCTTCTCCAGCCCTGCAGGGCCGACAGCAAAATG
 AGTGCCAGCGACCCCAACTCCTCCATCTTCTCACCGACACGGCAAGCAGATCAAAACCAAGGTCAATA
 AGCATCGTTTTCTGGAGGGAGAGACACCATCGAGGAGCACAGGCAGTTTGGGGCAACTGTGATGTGGA
 CGTGTCTTTCATGTACCTGACCTTCTTCTCGAGGACGACGACAAGCTCGAGCAGATCAGGAAGGATTAC
 ACCAGCGGAGCCATGCTCACCAGTGTGAGCTCAAGAAGGCACTCATAGAGTTCTGCAGCCCTTGTGCGAG
 AGCACCAGGCCCGCGCAAGGAGGTCACGGATGAGATAGTAAAAGAGTTCATGACTCCCCGAAGCTGTC
 CTTGACTTTTCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218539 representing NM_213645
 Red=Cloning site Green=Tags(s)

MPNSEPASLLELFNSIATQGELVRSKAGNASKDEIDSAVKMLVSLKMSYKAAAGEDYKADCPPGNPAPT
 SNHGPDTEAEEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKELINRIERATGQRPHHFLRRGIFFSH
 RDMNQVLDAYENKPFYLYTGRGPSSEAMHVGHLPFIFTKWLQDVFNPLVIQMTDDEKYLWKDLTLDQ
 AYSYAVENAKDIIACGFDINKTFIFSDLDYMGSSGFYKNVVKIQKHVTFNQVKIFGFTSDCIGKISF
 PAIQAAAPSFNSFPQIFRDRTDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKALLHSTFFPALQGAQTKM
 SASDPNSSIFLTDATAKQIKTKVNKHAFSGGRDTEEHRQFGGNCDVDVSFMYLTFLEDDDKLEQIRKDY
 TSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMTPRKLSFDFQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

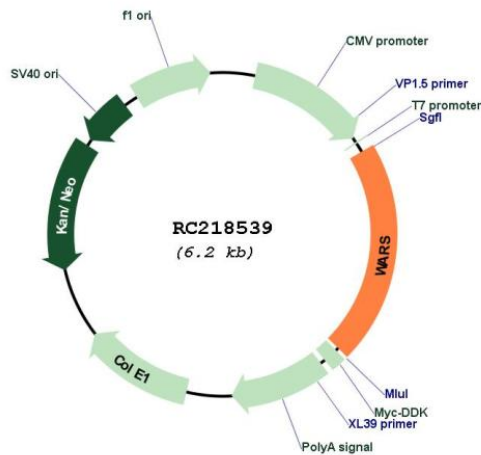
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_213645

ORF Size: 1416 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_213645.1 , NP_998810.1
RefSeq Size:	2488 bp
RefSeq ORF:	1293 bp
Locus ID:	7453
UniProt ID:	P23381
Cytogenetics:	14q32.2
Protein Families:	Druggable Genome
Protein Pathways:	Aminoacyl-tRNA biosynthesis, Tryptophan metabolism
MW:	53.2 kDa
Gene Summary:	<p>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. Tryptophanyl-tRNA synthetase (WARS) catalyzes the aminoacylation of tRNA(trp) with tryptophan and is induced by interferon. Tryptophanyl-tRNA synthetase belongs to the class I tRNA synthetase family. Four transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p>