

## Product datasheet for **RG218591**

### Tryptophanyl tRNA synthetase (WARS) (NM\_213646) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tryptophanyl tRNA synthetase (WARS) (NM_213646) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	WARS1
Synonyms:	GAMMA-2; HMN9; IFI53; IFP53; WARS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG218591 representing NM\_213646  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGCCAACAGTGAGCCGCATCTCTGCTGGAGCTGTTCAACAGCATCGCCACACAAGGGGAGCTCGTAA  
 GGTCCCTCAAAGCGGAAATGCGTCAAAGGATGAAATTGATTCTGCAGTAAAGATGTTGGTGTCATTAAA  
 AATGAGCTACAAAGCTGCCGCGGGGAGGATTACAAGGCTGACTGTCTCCAGGGAACCCAGCACCTACC  
 AGTAATCATGGCCAGATGCCACAGAAGCTGAAGAGGATTTTGTGGACCCATGGACAGTACAGACAAGCA  
 GTGCAAAAGGCATAGACTACGATAAGCTCATTGTTTCGGTTTGGAAAGTAGTAAAATTGACAAAAGAGCTAAT  
 AAACCGAATAGAGAGAGCCACCGGCCAAAGACCACACCACTTCTGCGCAGAGGCATCTTCTTCACAC  
 AGAGATATGAATCAGGTTCTTGATGCCTATGAAAATAAGAAGCCATTTTATCTGTACACGGGCCGGGGCC  
 CCTCTTCTGAAGCAATGCATGTAGGTCACCTCATTCCATTTATTTTACAAAAGTGGCTCCAGGATGTATT  
 TAACGTGCCCTTGGTCATCCAGATGACGGATGACGAGAAGTATCTGTGGAAGGACCTGACCTGGACCAG  
 GCCTATAGCTATGCTGTGGAGAATGCCAAGGACATCATCGCTGTGGCTTTGACATCAACAAGACTTTCA  
 TATTCTCTGACCTGGACTACATGGGGATGAGCTCAGGTTTCTACAAAAATGTGGTGAAGATTCAAAAGCA  
 TGTTACCTTCAACCAAGTAAAAGGCATTTTCGGCTTCACTGACAGCGACTGCATTGGGAAGATCAGTTTT  
 CCTGCCATCCAGGCTGCTCCCTCCTCAGCAACTCATTCCACAGATCTTCCGAGACAGGACGGATATCC  
 AGTGCCTTATCCCATGTGCCATTGACCAGGATCCTTACTTTAGAATGACAAGGGACGTCGCCCCCAGGAT  
 CGGCTATCCTAAACCAGCCCTGCTGCACTCCACCTTCTCCAGCCCTGCAGGGCCGACAGCAAAATG  
 AGTGCCAGCGACCCCACTCCTCCATCTTCTCACCAGCAGGCCAAGCAGATCAAAACCAAGGTCAATA  
 AGCATGCGTTTTCTGGAGGGAGAGACACCATCGAGGAGCACAGGCAGTTTGGGGGCACTGTGATGTGGA  
 CGTGTCTTTCATGTACCTGACCTTCTTCTCGAGGACGACGACAAGCTCGAGCAGATCAGGAAGGATTAC  
 ACCAGCGGAGCCATGCTACCGGTGAGCTCAAGAAGGCACTCATAGAGTTCTGCAGCCCTTGATCGCAG  
 AGCACCAGGCCCGCGCAAGGAGGTCACGGATGAGATAGTAAAAGAGTTCATGACTCCCCGGAAGCTGTC  
 CTTGACTTTTCAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG218591 representing NM\_213646  
 Red=Cloning site Green=Tags(s)

MPNSEPASLLELFNSIATQGELVRSKAGNASKDEIDSAVKMLVSLKMSYKAAAGEDYKADCPPGNPAPT  
 SNHGPDTEAEEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKELINRIERATGQRPHHFLRRGIFFSH  
 RDMNQVLDAYENKPPFYLYTGRGPSSEAMHVGHLPFIFTKWLQDVFNPLVIQMTDDEKYLWKDLTLDQ  
 AYSYAVENAKDIIACGFDINKTFIFSDLDYMGSSGFYKNVVKIQKHVTFNQVKGIFGFTSDCIGKISF  
 PAIQAAAPSFNSFPQIFRDRDIIQCLIPCAIDQDPYFRMTRDVAPRIGYPKALLHSTFFPALQGAQTKM  
 SASDPNSSIFLTDQAKQIKTKVNHAFSGGRDTEEHRQFGNCDVDVSFMYLTFLEDDDKLEQIRKDY  
 TSGAMLTGELKKALIEVLQPLIAEHQARRKEVTDEIVKEFMPRKL SFDQ

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI



<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_213646.1</a> , <a href="#">NP_998811.1</a>
<b>RefSeq Size:</b>	2712 bp
<b>RefSeq ORF:</b>	1293 bp
<b>Locus ID:</b>	7453
<b>UniProt ID:</b>	<a href="#">P23381</a>
<b>Cytogenetics:</b>	14q32.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Aminoacyl-tRNA biosynthesis, Tryptophan metabolism
<b>Gene Summary:</b>	<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>