

## Product datasheet for **SC117508**

### Tryptophanyl tRNA synthetase (WARS) (NM\_004184) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Tryptophanyl tRNA synthetase (WARS) (NM_004184) Human Untagged Clone
Tag:	Tag Free
Symbol:	Tryptophanyl tRNA synthetase
Synonyms:	GAMMA-2; HMN9; IFI53; IFP53; WARS
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

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>OriGene sequence for NM_173701 edited
GTTTCCACGGACGCCAGGAGACAGCCCGTTGCTGAGCCGGGAGCGCTGACTGGCCCGGC
TGGGCAGGTCTTGACTCGTCTGCTGAACAAATCCTCTGACCTCAGGCCGGCTGTGAACGT
AGTTCTGAGAGATAGCAAAATGCCCCAACAGTGAAGCCGATCTCTGCTGGAGCTGTTT
AACAGCATCGCCACACAAGGGGAGCTCGTAAGGTCCCTCAAAGCGGGAATGCGTCAAAG
GATGAAATTGATTCTGCAGTAAAGATGTTGGTGCATTAATAAATGAGCTACAAAGCTGCC
GCGGGGAGGATTACAAGGCTGACTGTCCTCCAGGGAACCCAGCACCTACCAGTAATCAT
GGCCAGATGCCACAGAAGCTGAAGAGGATTTTGTGGACCCATGGACAGTACAGACAAGC
AGTGCAAAAGGCATAGACTACGATAAGCTCATTGTTTCGGTTTGGAAAGTAGTAAAAATTGAC
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AGAGGCATCTTCTCTCACACAGAGATATGAATCAGGTTCTTGATGCCTATGAAAATAAG
AAGCCATTTTATCTGTACACGGGCCGGGCCCTCTTCTGAAGCAATGCATGTAGGTCAC
CTCATTCCATTTATTTTCAAAAGTGGCTCCAGGATGATTTAACGTGCCCTTGGTCATC
CAGATGACGGATGACGAGAAGTATCTGTGGAAGGACCTGACCCTGGACCAGGCCTATAGC
TATGCTGTGGAGAATGCCAAGGACATCATCGCCTGTGGCTTTGACATCAACAAGACTTTC
ATATTCTCTGACCTGGACTACATGGGGATGAGCTCAGGTTTCTACAAAAATGTGGTGAAG
ATTCAAAAGCATGTTACCTTCAACCAAGTAAAAGGCATTTTCGGCTTCACTGACAGCGAC
TGCATTGGGAAGATCAGTTTTCTGCCATCCAGGCTGCTCCCTCCTTCAGCAACTCATT
CCACAGATCTTCCGAGACAGGACGGATATCCAGTGCCTTATCCCATGTGCCATTGACCAG
GATCCTTACTTTAGAATGACAAGGGACGTGCCCCCAGGATCGGCTATCCTAAACCAGCC
CTGCTGCACTCCACCTTCTTCCAGCCCTGCAGGGCGCCAGACCAAAATGAGTGCCAGC
GACCCCAACTCCTCCATCTTCTCACCGACACGGCCAAGCAGATCAAAACCAAGGTCAAT
AAGCATGCGTTTTTCTGGAGGGAGAGACCATCGAGGAGCACAGGCAGTTTGGGGCAAC
TGTGATGTGGACGTGTCTTTCATGTACCTGACCTTCTTCCCTCGAGGACGACGACAAGCTC
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GGGCCACCTGTTCTTGTCCATGGAGGACTCCGAGGGTTCCAAGTATACTCTTAAGACC
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AAGAAATCACCCAGCTTTAAAGCTGCTTTTAAACAATGAAGATTGAACAGAGTTCAGCAGT
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TGACCCTAGACCCTCTGTCTGCAGAGTCAGGGTGGCTTTTCCCTGACTGTGTCCGATG
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CACAGAGCAGTGCCTGGCTGTGTCCCTGGACGGGTGGACTTAGCTAGGGAGAAAGTCGA
GGCAGCAGCCCTCGAGGCCCTCACAGATGTCTAGGCAGGCCTCATTTTCATCACGCAGCAT
GTGCAGGCCTGGAAGAGCAAAGCCAAATCTCAGGGAAGTCTTGGTTGATGTATCTGGGT
CTCCTCTGGAGCACTCTGCCCTCTGTACCCAGTAGAGTAAATAAACTCCTTGGCTCC
TAAAAAAAAAAAAAAAAAAAAA
    
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<b>5' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 5' read for NM_004184 unedited</p> <pre>TTCCTACTATTTGTNAATACCGACNCACTATAGGGNCCGGCCGCAATTCGGCACGAG GGTTTCCACGGACGCCAGGAGACAGCCCGTTGCTGAGCCGGGAGCGCTGACTGGCCCGG CTGGGCAGGTCTTGACTCGTCTGCTGAACAAATCCTCTGACCTCAGGCCGGCTGTGAACG TAGTTCCTGAGAGATAGCAAACATGCCAACAGTGAGCCCGCATCTCTGCTGGAGCTGTT CAACAGCATCGCCACACAAGGGGAGCTCGTAAGGTCCCTCAAAGCGGGAATGCGTCAAA GGATGAAATTGATTCTGCAGTAAAGATGTTGGTGCATTAATAATGAGCTACAAAGCTGC CGCGGGGAGGATTACAAGGCTGACTGTCTCCAGGGAACCCAGCACCTACCAGTAATCA TGGCCAGATGCCACAGAAGCTGAAGAGGATTTTGTGGACTCATGGACAGTACAGACAAG CAGTGCAAAGGCATAGACTACGATAAGCTCATTGTTCCGGTTTGGAAAGTAGTAAATTTGA CAAAGAGTAATAAACCGAATAGAGAGAGCCACCGGCCAAAGACCACCACTTTCTGCG CAGAGGCATCTTCTTCTCACACAGAGATATGAATCACGTTCTTGTATGCCTATGAAATAA GAAGCCATTTTTATCTGTACACGGGCCGGGCCCTCTTCTGAACAATGCATGTACGCCA CCTCATTCCATTTATTTTCAAAAGTGGCTCCAGGATGTATTTAACGTGCCCTTGTTC TCCAGAAGACGGATGACGAGAAGTATCTGTTGAAAGAAGTACCCTGGACANGCCCTATA GCTATGCTGCGGAGAAAGCAAGGAATCATCGCCTGTGGCTTTGACATCACCAGAAGTTC ATATTCTTTGAACTGGACCTCATGGGGATGAGCT</pre>
<b>3' Read Nucleotide Sequence:</b>	<p>&gt;OriGene 3' read for NM_004184 unedited</p> <pre>CGGCCGCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTTTCAGGAGCCAAGAAAGTTTATT TACTCTACTGGGTGACAGGAGGGCAGAGTGCTCCAGAGGAGACCCAGATACATCAACCAA GGACTTCCTGAGATTTGGCTTTGCTCTTCCAGGCCTGCACATGCTGCGTGATGAAATGA GGCCTGCCTAGACATCTGTGAGGGCCTCGAGGGCTGCTGCCTCGACTTTCTCCCTAGCTA AGTCCACCCGTCCAGGGACACAGCCAGGGCACTGCTCTGTGCTGACTTCCACTGCAGCCA AGGGTCAAATGAAGCATCTGCGGAGGCCAGGACTCCTTGGCATCGGACACAGTCAGGGG AAAAGCCACCCTGACTCTGCAGGACAGAGGGTCTAGGGTCATTTGGCAGGAGAAGACTGG TGTGCCAAGGGAAGCGAGCATGATTTCTGGAGTGGACTACATGCATGGTCTGGAGTTCA TAACTGGAAAGTTTCAACCCCAAGTCTTAATTTAATCAAAGTCTGAACTCTGTTCAA CTTTTACTTGTAAAAGCAGCTTTAAAGCTGGGTGATTTCTTAGTCAAATGTATAACGAAG TTTTACTTATCAATTTCTTTTTGGGAGGGGGCATGGGCTGAAATACATCTTGTGCTCAA TAAACCTNCCCACATCAATATTTCAAAGCCACTTTCTAAGTTACAATTAATGACATTTCA TTTTCATATACGCATACATAGGATATATATTTTTAAACAGAGTGGGTCTAAGAGTATAC TTGGAACCCTCGGAGTCCCCATGGACAAGACCAGGGTGGCCATGAACTTCCAGCCCAA AGCTCCACTGTGGGGCTGCTTTGGGGAGAAACCAACTGGATTCTTCCACCTGCATG TTACCACCCCATTTCCCAATGCTTGCCTTAAAAAGAATATGGACCCCGGAAAAAN</pre>
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_004184
<b>Insert Size:</b>	2700 bp
<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	The ORF of this clone is found to be a perfect match to NM_173701.1.
<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_004184.3</a> , <a href="#">NP_004175.2</a>
<b>RefSeq Size:</b>	2884 bp
<b>RefSeq ORF:</b>	1416 bp
<b>Locus ID:</b>	7453
<b>UniProt ID:</b>	<a href="#">P23381</a>
<b>Cytogenetics:</b>	14q32.2
<b>Domains:</b>	WHEP-TRS, tRNA-synt_1b
<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> <p>Transcript Variant: This variant (1) represents the longest transcript. Variants 1 and 2 both encode isoform a.</p>