

## Product datasheet for **RG202140**

### **TARS1 (NM\_152295) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TARS1 (NM_152295) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TARS1
Synonyms:	TARS; ThrRS; TTD7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG202140 representing NM\_152295  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAGATGGGAGGCGAGGAGAAGCCGATTGGTGCTGGT  
 AAGAGAAGCAAAAGGAAGGAGGCCAAAAGAAGAACAAGGATCTGGAGATGGAGGTCGAGCTGAGTT  
 GAATCCTTGCCCTGAATATATTTACACACGCTCTTGAGATGTATAATACTAAAAGCAGAACATGATTCC  
 ATTCTGGCAGAAAAGGCAGAAAAAGATAGCAAGCCAATTAAGTCACTTTGCCTGATGGTAAACAGGTTG  
 ATGCGGAATCTTGAAAACACTACCCATATCAAATGCCTGTGGAATTAGTCAAGGCTGGCCGACAACAC  
 CGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCCTCGGAAGAAGATTGTACCTGGAG  
 CTTCTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAG  
 CCATGGAAGAGTCTATGGTGGATGTTTATGCTACGGTCCGCAATAGAAAATGGATTCTATTATGACAT  
 GTACCTCGAAGAAGGGGTGTGTCTAGCAATGATTTCTCTCTGGAGGCTTTGTGAAGAAAATCATT  
 AAAGAAAAACAAGCTTTTGAAAGACTGGAAGTTAAGAAAAGAACTTTACTGGCAATGTTTAAAGTACAACA  
 AGTTCAAATGCCGGATATTGAATGAAAAGGTGAATACTCCAACACTACCACAGTCTATAGATGTGGCCCTTT  
 GATAGATCTCTGCCGGGGTCTCATGTTAGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAAT  
 TCCTCCACGACTGGGAAGGCAAGCAGATATGGAGACTCTCCAGAGAATTTATGGCATTTCATCCCAG  
 ATCCTAAAATGTTGAAAGAGTGGGAGAAGTCCAAAGAGGAAGCTAAAACCGAGATCATAGGAAAATTGG  
 CAGGGACCAAGAAGTATATTTCTTTTCACTGAACTCAGCCCTGGAAGTTGCTTTTTTCTGCCAAAAGGAGCC  
 TACATTTATAATGCACCTATTGAATTCATTAGGAGCGAATATAGGAAAAGAGGATTCCAGGAGGTAGTCA  
 CCCCAAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCACTACAGCAGAAACATGTT  
 CTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCTGAAACCCATGAACTGCCAGGACACTGCCTTATGTTT  
 GATCATCGGCCAAGGTCCTGGCGAGAAGTGCCTCTGCGGCTAGCTGATTTTGGGGTACTTCATAGGAACG  
 AGCTGTCTGGAGCACTCACAGGACTCACCCGGTACGAAGATTCCAACAGGATGATGCTCACATATTCTG  
 TGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTTTGGATTTTCTACGTACGGTATATAGCGTATTT  
 GGATTTTCTTTAACTAAACCTTTCTACTCGCCCGAAAAATTCCTTGAGATATCGAAGTATGGGATC  
 AAGCTGAGAAACAACCTGAAAACAGTCTGAATGAATTTGGTAAAAGTGGGAGTTAACTCTGGAGATGG  
 AGCTTTCTATGGCCAAAGATTGACATACAGATTAAGATGCGATTGGGCGGTACCACCAGTGTGCAACC  
 ATCCAGCTGGATTTCCAGTTGCCATCAGATTTAATCTTACTTATGTAAGCCATGATGGTGTATGATAAGA  
 AAAGGCCAGTGATTGTTTCATCGAGCCATCTGGGATCAGTGGAAGAATGATTGCTATCCTCACAGAAAA  
 CTATGGGGGCAAAATGGCCCTTTTGGCTGTCCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGT  
 GATGAATATGCCAAAAGGTACGACAACAATCCACGATGCCAAATTCATGGCAGACATTGATCTGGATC  
 CAGGCTGTACATTGAATAAAAAGATTGAAATGCACAGTTAGCACAGTATAAATTCATTTTAGTTGTTGG  
 TGAAAAAGAGAAAATCAGTGGCACTGTTAATATCCGCACAAGAGACAATAAGGTCCACGGGGAACGCACC  
 ATTTCTGAAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCGCGAGCAAAACAGGCAGAAGAAGAATTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG202140 representing NM\_152295  
Red=Cloning site Green=Tags(s)

MFE EKASSPSGKMGEEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWPEYIYTRLEMYNILKAEHDS  
 ILAEKAEKDSKPIKVTL PDGKQVDAESWKTPYQIACGISQGLADNTVIKVN NVVWDLDRPLEEDCTLE  
 LLKFEDEEAQAVYWHSSAHIMGEAMERVYGGCLCYGPIIENGFYDMYLEEGVSSNDFSSLEALCKKII  
 KEKQAFERLEVKKETLLAMFKYNKFKCRILNEKVNTPTTTVYRCGPLIDL CRGPHVRHTGKIKALKIHK  
 SSTYWEGKADMETLQRIYGISFPDPKMLKEWEKFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGA  
 YIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSGHWQHYSENMF SFEVEKELFALKPMNCPGHCLMF  
 DHRPRSWRELPLRLADFGVLHRLNELSGALTGLTRVRRFQQDDAHIFCAMEQIEDEIKGCLDFLRTVYSVF  
 GFSFKLNLSTRPEKFLGDI EVDQAEKQLENSLNEFGEK WELNSGDGAFYGP KIDIQIKDAIGRYHQCAT  
 IQLDFQLPIRFNLTYVSHDGD KRPVIVHRAILG SVERMIAILTENYGGKWPFWLSPRQVMVVPVGPTC  
 DEYAQKVRQQFHDAKFMADIDLDPGCTLNKKIRNAQLAQYNFILV VGEKEKISGTVNIRTRDNKVHGERT  
 ISETIERLQQLKEFRSKQAE EEF

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_152295

**ORF Size:** 2169 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:**

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\\_152295.5](#)

**RefSeq Size:** 2888 bp

**RefSeq ORF:** 2172 bp

**Locus ID:** 6897

**UniProt ID:** [P26639](#)

**Cytogenetics:** 5p13.3

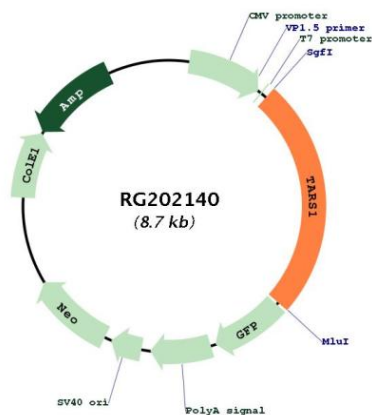
**Domains:** tRNA-synt\_2b, TGS, HGTP\_anticonodon

**Protein Families:** Druggable Genome

**Protein Pathways:** Aminoacyl-tRNA biosynthesis

**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. Threonyl-tRNA synthetase belongs to the class-II aminoacyl-tRNA synthetase family [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG202140