

## Product datasheet for **RG234841**

### **TARS1 (NM\_001258438) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	TARS1 (NM_001258438) 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:**

>RG234841 representing NM\_001258438  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAGATGGGAGGCGAGGAGAAGCCGATTGGTGCTGGTGAAGAGAAGCAAAAAGGAAGGAGGCCAAAAAGAAGCAAAAGAAGGATCTGGAGATGGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTTACACACGTCCTTGAGATGTATAATACTAAAAGCAGAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAAGATAGCAAGCCAATTAAGTCACTTTGCCTGATGGTAAACAGGTTGATGCGGAATCTTGGAAAACACACCATACAAATTGCCTGTGGAATTAGTCACACAGCTTCTGCAAAAACTCTCTTCACTTGCATCTCTGCTTGCATCTGTGGCCATTCCTCATCTGGAATGCCATGGCCTCTCTTTCTTCTTCAAGCCTGGCCGACAACACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCTCTGGAAGAAGATTGTACCTTGGAGCTTCTCAAGTTTGGAGATGAGGAAGCTCAGGCAGTGTATTGGACTCTAGTGCTCACATAATGGGTGAAGCCATGGAAAGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAAGGGGTGTGTCTAGCAATGATTTCTCTCTCTGGAGGCTTTGTGTAAAGAAATCATTAAAGAAAAACAAGCTTTTGAAGACTGGAAGTTAAGAAAGAACTTTACTGGCAATGTTAAGTACAACAAGTTCAAAATGCCGGATATTGAATGAAAAGGTGAATACTCCAACACAGTCTATAGATGTGGCCCTTGTATAGATCTCTGCCGGGTCCTCATGTTAGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTAAGGGAAGGCAAGCAGATGAGACTCTCCAGAGAAATTTATGGCATTTCATTTCCAGATCCTAAAAATGTTGAAAGAGTGGGAGAAGTTCAAGAGGAAAGTAAAAACCGAGATCATAGGAAAATGGCAGGGACCAAGAATATATTTCTTTCATGAAGTACAGCCCTGTAAAGTTGCTTTTTCTGCCAAAAGGAGCCTACATTTATAATGCACTTATTGAATTCATTAGGAGCGAATAGGAAAAGAGGATTCCAGGAGGTAGTACCCCAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCTGGCAGCACTACAGCGAGAACATGTTCTCTTTGAGGTGGAGAAGGAGCTGTTTGCCCTGAAACCCATGAACTGCCAGGACACTGCCTTATGTTTGATCATCGGCCAAGGTCTGGCGAGAAGTGCCTCTGCGGCTAGCTGATTTTGGGTACTTCATAGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGTACGAAGATTCCAACAGGATGATGCTCACATATTCTGTGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTTTGGATTTTCTACGTACGATATAGCGTATTTGGATTTTCTTTAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGGAGATATCGAAGTATGGGATCAAGCTGAGAAACAACCTGAAAACAGTCTGAATGAATTTGGTGAAGAGTGGGAGTTAACTCTGGAGATGGAGCTTCTATGGCCAAAGATTGACATACAGATTAAGATGCGATTGGCGGTACCACAGTGTGCAACCATCCAGCTGGATTTCCAGTTGCCATCAGATTAATCTTACTTATGTAAGCCATGATGGTGATGATAAGAAAAGGCCAGTGATTGTTTCATCGAGCCATCTTGGGATCAGTGAAGAATGATTGCTATCCTCACAGAAAATATGGGGGCAAAATGGCCCTTTTGGCTGTCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCAAAAGGTACGACAACAATTCACAGTGCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTGAAATGCACAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAAAAGAGAAAAATCAGTGGCACTGTTAATATCCGCACAAAGAGACAATAAGGTCCACGGGAACGCACCATTTCTGAACTATCGAGCGGCTACAGCAGCTCAAAGATTCGCAGCAAACAGGCAGAAGAAGAAATTT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG234841 representing NM\_001258438  
Red=Cloning site Green=Tags(s)

MFE EKASSPSGKMGEEKPIGAGEEKQKEGGKKKKEGSGDGGRAELNPWPEYIYTRLEMYNILKAEHDS  
 ILAEKAEKDSKPIKVTLPDGKQVDAESWKTPYQIACGISHTASCKNLSSLASLLASVAIPSSGMPWPPL  
 FFLQGLADNTVIAKVNNVVWDLDRPLEEDCTLELLKFEEEAQAVYWHSSAHIMGEAMERYVGGCLCYGP  
 PIENGFYDMYLEEGVSSNDFSSLEALCKKIIEKEQAFERLEVKKETLLAMFKYNKFKCRILNEKVNT  
 PTTVYRCGPLIDL CRGPHVRHTGKIKALKIHKNSSTYWE GKADMETLQRIYGISFPDPKMLKEWKFQEE  
 AKNRDHRKIGRDQELYFFHELSPGSCFFLPKGAYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG  
 HWQHYSENMFSFEVEKELFALKPMNCPGHCLMFDHRPRSWRELPLRLADFGVLHRNELSGALTGLTRVRR  
 FQDDAHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDI EVDQAEKQLENSLNEFG  
 EKWELNSGDGAFYGP KIDIQIKDAIGRYHQCATIQLDFQLPIRFNLTYVSHDGD DKKRPVIVHRAILGSV  
 ERMIAILTENYGGKWPFWLSPRQVMVVPVGP TCDEYAQKVRQQFHDAKFMADIDLDPGCTLNKKIRNAQL  
 AQYNFILVVGEEKISGT VNI RTRDNK VHGERTISETIERLQQLKEFRSKQAE EEF

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001258438

**ORF Size:** 2268 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\\_001258438.1](#), [NP\\_001245367.1](#)

**RefSeq Size:** 2974 bp

**RefSeq ORF:** 2271 bp

**Locus ID:** 6897

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

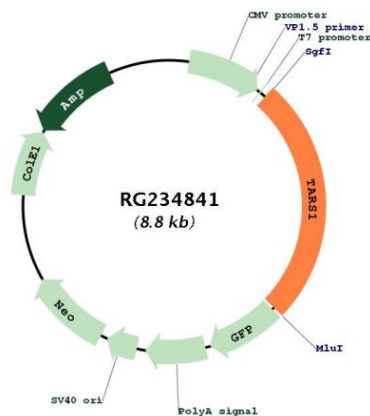
**Cytogenetics:** 5p13.3

**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 RG234841