

## Product datasheet for **RG217559**

### Glutamyl Prolyl tRNA synthetase (EPRS) (NM\_004446) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Glutamyl Prolyl tRNA synthetase (EPRS) (NM_004446) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Glutamyl Prolyl tRNA synthetase
Synonyms:	EARS; EPRS; GLUPRORS; HLD15; PARS; PIG32; QARS; QPRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217559 representing NM_004446 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

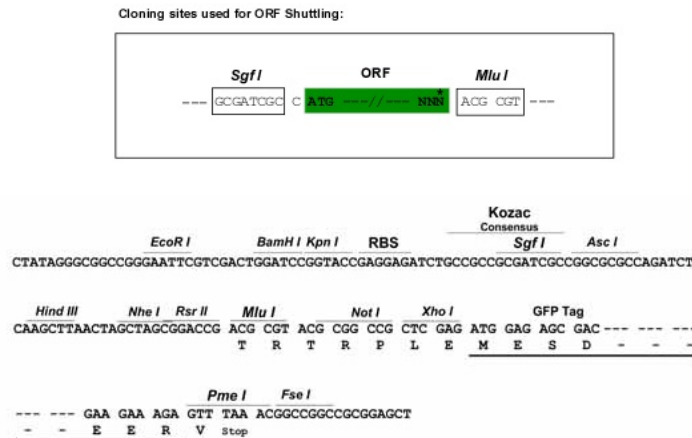
**Protein Sequence:** >RG217559 representing NM\_004446  
 Red=Cloning site Green=Tags(s)

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 KIWAFNKKVIDPVAPRYVALLKKEVIPVNVPEAQEEMKEVAKHPKNPEVGLKPVWYSPKVFIEGADAETF  
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 QGEVVRKLKTEKAPKDQVDIAVQELLQLKAQYKSLIGVEYKPVSA TGAEDKDKKKKKEKENKSEKQNKPKQ  
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 IPGEKQFAYQNSWGLTTRTIGVMTMVHGDNMGLVLPVRVACVQVVIIPCGITNALSEEDKEALIAKCNDY  
 RRRLLSVNIRVRADLRDNYSPGWKFNHWELKGVPIRLEVGP RDMKSCQFVAVRRDTGEKLTVAENEAETK  
 LQAILEDIQVTLFTRASEDLKTHMVVANTMEDFQKILDSGKIVQIPFCGEIDCEDWIKKTTARDQDLEPG  
 APSMGAKSLCIPFKPLCELQPGAKCVCCKNPAKYTYTLFGRSY

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004446

**ORF Size:** 4536 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_004446.3](#)

**RefSeq Size:** 5021 bp

**RefSeq ORF:** 4539 bp

**Locus ID:** 2058

**UniProt ID:** [P07814](#)

**Cytogenetics:** 1q41

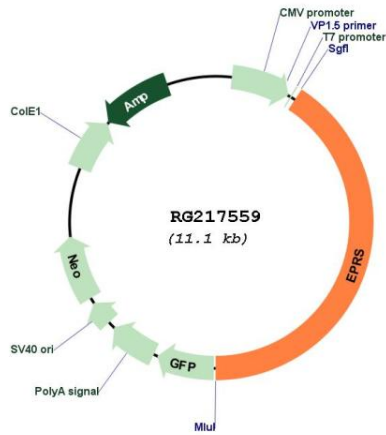
**Domains:** WHEP-TRS, tRNA-synt\_1c, tRNA-synt\_2b, HGTP\_anticodon

**Protein Families:** Druggable Genome

**Protein Pathways:** Aminoacyl-tRNA biosynthesis, Metabolic pathways, Porphyrin and chlorophyll metabolism

**Gene Summary:** Aminoacyl-tRNA synthetases are a class of enzymes that charge tRNAs with their cognate amino acids. The protein encoded by this gene is a multifunctional aminoacyl-tRNA synthetase that catalyzes the aminoacylation of glutamic acid and proline tRNA species. Alternative splicing has been observed for this gene, but the full-length nature and biological validity of the variant have not been determined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG217559