

Product datasheet for RC217559

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:	Myc-DDK
Symbol:	Glutamyl Prolyl tRNA synthetase
Synonyms:	EARS; EPRS; GLUPRORS; HLD15; PARS; PIG32; QARS; QPRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC217559 representing NM_004446 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >RC217559 representing NM_004446
Red=Cloning site Green=Tags(s)

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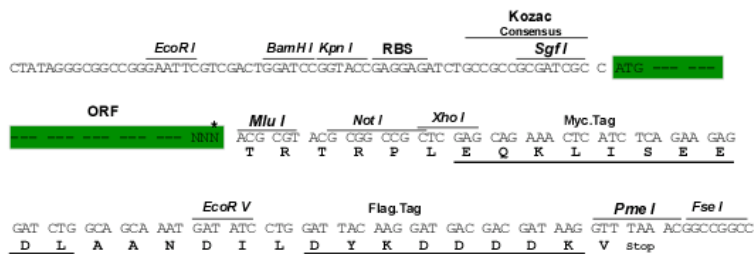
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Chromatograms: https://cdn.origene.com/chromatograms/mk6263_b09.zip

Restriction Sites: SgfI-MluI

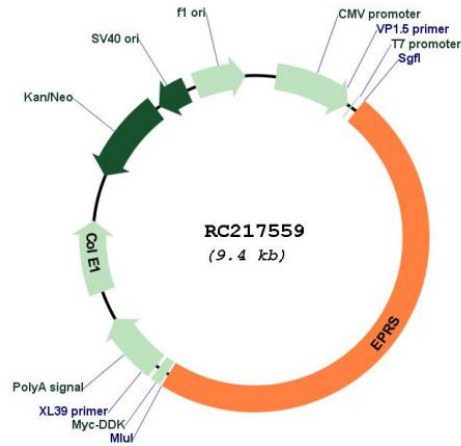
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



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 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

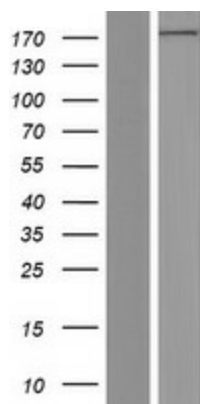
Protein Families: Druggable Genome

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

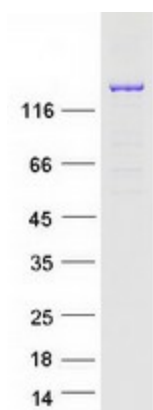
MW: 170.4 kDa

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:



Western blot validation of overexpression lysate (Cat# [LY417983]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217559 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EPRS protein (Cat# [TP317559]). The protein was produced from HEK293T cells transfected with EPRS cDNA clone (Cat# RC217559) using MegaTran 2.0 (Cat# [TT210002]).