

### Product datasheet for RC202136L4

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## AlaRS (AARS) (NM\_001605) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: AlaRS (AARS) (NM\_001605) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: AlaRS

**Synonyms:** AARS; CMT2N; DEE29; EIEE29

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone is exactly the same as(RC202136).

Sequence:

Restriction Sites: Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_001605

ORF Size: 2904 bp





#### AlaRS (AARS) (NM\_001605) Human Tagged Lenti ORF Clone - RC202136L4

**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:** <u>NM 001605.2</u>

RefSeq Size: 3344 bp RefSeq ORF: 2907 bp

Locus ID: 16

UniProt ID: P49588
Cytogenetics: 16q22.1

**Domains:** tRNA-synt 2c, DHHA1

**Protein Pathways:** Aminoacyl-tRNA biosynthesis

**MW:** 106.8 kDa

**Gene Summary:** The human alanyl-tRNA synthetase (AARS) belongs to a family of tRNA synthases, of the class

II enzymes. Class II tRNA synthases evolved early in evolution and are highly conserved. This is reflected by the fact that 498 of the 968-residue polypeptide human AARS shares 41% identity witht the E.coli protein. tRNA synthases are the enzymes that interpret the RNA code

and attach specific aminoacids to the tRNAs that contain the cognate trinucleotide

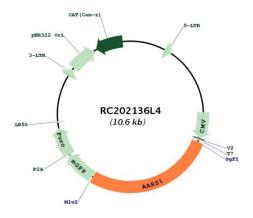
anticodons. They consist of a catalytic domain which interacts with the amino acid acceptor-T

psi C helix of the tRNA, and a second domain which interacts with the rest of the tRNA

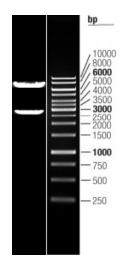
structure. [provided by RefSeq, Jul 2008]



# **Product images:**



Circular map for RC202136L4



Double digestion of RC202136L4 using Sgfl and Mlul