

Product datasheet for **RG212911**

Isoleucyl tRNA synthetase (IARS) (NM_002161) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Isoleucyl tRNA synthetase (IARS) (NM_002161) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	IARS1
Synonyms:	GRIDHH; IARS; ILERS; ILRS; IRS; PRO0785
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG212911 representing NM_002161 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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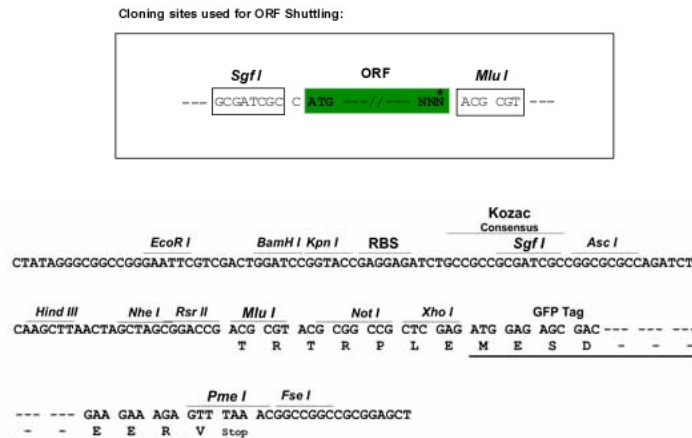
Protein Sequence: >RG212911 representing NM_002161
Red=Cloning site Green=Tags(s)

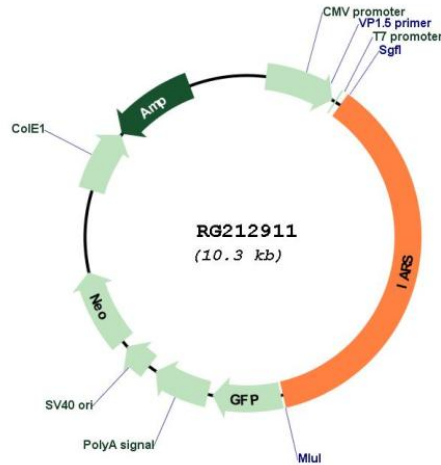
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PYT PFL TELM YQN LKVL IDPVSVQDKD T L S IHYLM LPRVREEL IDKKTESAVSQM QS VIELGRVIRDRKT
IPIKYPLKEIVVIHQDPEALKDIKSLEKYIEELNVRKVT LSTDKNKYGIRLRAEPDHMVLGKRLKGAFK
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VGTLLLENPLGQNGLTHQGLLYEAAKFGLRSRKLKFLNETQTQEITEDIPVKT LNMKTVVYVSLPTTA
DF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_002161

ORF Size: 3786 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_002161.2](#), [NP_002152.1](#)

RefSeq Size: 4335 bp

RefSeq ORF: 3789 bp

Locus ID: 3376

UniProt ID: [P41252](#)

Cytogenetics: 9q22.31

Domains:	tRNA-synt_1
Protein Families:	Druggable Genome
Protein Pathways:	Aminoacyl-tRNA biosynthesis, Valine, leucine and isoleucine biosynthesis
Gene Summary:	<p>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. Isoleucine-tRNA synthetase belongs to the class-I aminoacyl-tRNA synthetase family and has been identified as a target of autoantibodies in the autoimmune disease polymyositis/dermatomyositis. Alternatively spliced transcript variants have been found. [provided by RefSeq, Nov 2012]</p>