

## Product datasheet for RC212911

### 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:	Myc-DDK
Symbol:	Isoleucyl tRNA synthetase
Synonyms:	GRIDHH; IARS; ILERS; ILRS; IRS; PRO0785
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC212911 representing NM_002161 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

ATGCTTCAACAAGTTCAGAAAACATAAAATTTCTGCTGAAGAAGAGAAAATCTTGGAGTTTTGGACTG  
AATTTAATTGTTTTAGGAATGCTTAAAGCAATCAAACATAAACCAAAATTTACCTTCTATGATGGTCC  
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AACAACTCTATGATAAAGGCCTGTTTATAGAGGTGTGAAAGTCAATGCCCTTCTCTACGGCATGTAACAC  
TCCACTTTCCAACCTCGAGTCACACCAGAATTATAAGGATGTTCAAGATCCTTCAGTATTTGTAACCTTC  
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TCAGGAGCAAAGATCTCAGATCTCCACAGAGAGAGTGTGACCACCTGACCATTCTTCACGCTGTGGGA  
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Protein Sequence: >RC212911 representing NM\_002161  
 Red=Cloning site Green=Tags(s)

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 PLEEDETVSLVAWTTTPWTLPSNLAVCVNPEMQYVYKIKDVARGRLILMEARLSALYKLESDYEILERFP  
 GAYLKGGKYRPLFDYFLKCKENGAFVTLVDNYVKEEGTGVVHQAPYFGAEDYRVCMDFNIIRKDSLPCV  
 PVDASGCFTEVTDFAQYVYKADAKSIIRTLKEQGRLLVATTFTHSYPFWCWSDTPLIYKAVPSWVFRVE  
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 SGAKISDLHRESVDHLTIPSRCKGSLHRISEVFDWFCWESGSMFYA QVHYPFENKREFEDAFPADFIAEG  
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 AVMTSIKQLSSEELQFQKTGTIVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQALVLLDVTDPQS  
 MVDEGMAREVINRIQKLKKNL VPTDEITVYKAKSEGTYLNSVIESHTEFIFTTIKAPLPYPVSPSD  
 KVLIQEKTQLKGSLEITL TRGSSLPGPACAYVNLNICANGSEQGGVLLLENPKGDNRLDLLKLSVVT  
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 DF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6168\\_d10.zip](https://cdn.origene.com/chromatograms/mk6168_d10.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

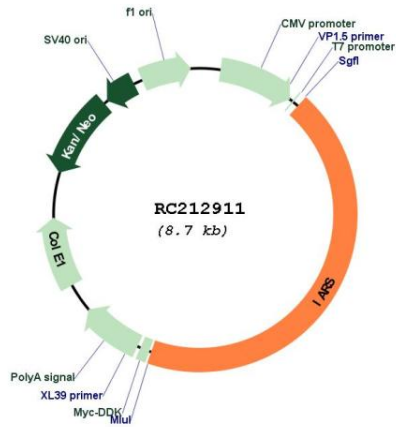


ACCN: NM\_002161

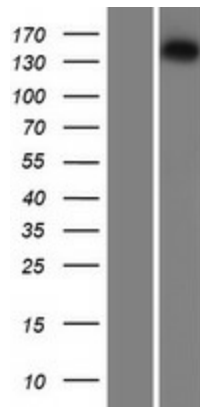
ORF Size: 3786 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_002161.2</a> , <a href="#">NP_002152.1</a>
<b>RefSeq Size:</b>	4335 bp
<b>RefSeq ORF:</b>	3789 bp
<b>Locus ID:</b>	3376
<b>UniProt ID:</b>	<a href="#">P41252</a>
<b>Cytogenetics:</b>	9q22.31
<b>Domains:</b>	tRNA-synt_1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Aminoacyl-tRNA biosynthesis, Valine, leucine and isoleucine biosynthesis
<b>MW:</b>	144.3 kDa
<b>Gene Summary:</b>	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]

Product images:



Circular map for RC212911



Western blot validation of overexpression lysate (Cat# [LY419497]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC212911 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).