

Product datasheet for **RC203384**

RARS2 (NM_020320) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RARS2 (NM_020320) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RARS2
Synonyms:	ArgRS; DALRD2; PCH6; PRO1992; RARSL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203384 representing NM_020320
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGTGGCGCTTTCGCGCGCTATTGCTTGCCAGCTTCCAGAGTGTTGAATCTCCACCAGAAAAC
 TGATCACATCAATATCTGCAGTTCCAATTTCCAAAAAGAAGAAGTAGCTGATTTTCAGCTTCTGTGGA
 TCTTTATTGAAAAAGACAATGACCATTCAAGACCAGATATTCAAGTTCAAGCCAAGAGACTAGCAGAG
 AAGCTAAGATGTGATACAGTGGTGGAGTAAATCAGTACTGGTCAAAGGACTGTAAATTTCAAATAAACA
 GAGAGCTCTTAACAAAGACAGTGTACAACAAGTAATTGAAGATGGCTCAAATATGGATTAAAAAGTGA
 ACTTTTCTCTGGACTTCCCAGAAAGATTGTGGTTGAATTCACTTACCTAATGTTGCCAAAAAATTT
 CATGTTGGACATTTGCGTCTACCATCATAGGAAATTTATAGCAATCTCAAAGAAGCTTTAGGACATC
 AAGTAATAAGAATAAATTACCTTGGCGATTGGGCATGCAGTTTGGTCTTCTGGGAACTGGCTTCCAGCT
 GTTTGGCTATGAGAAAACTGCAGTCCAATCCTCTACAGCATCTTTTGAAGTTTATGTACAAGTTAAT
 AAAGAAGCAGCAGATGATAAAGTGTAGCAAAAGCAGCACAGGAGTTCTTCCAACGATTGGAAGTGGCGG
 ATGTGCAAGCACTTTCACTGTGGCAAAAAATTCGGGACTTGAGCATTGAAGAGTACATTCGGGTTTACAA
 CGGTCTGGGAGTATATTTGATGAATATTCAGGAGAATCATTTTATCGTGAAAAATCTCAAGAGGTCTTA
 AAGTTGCTGGAGAGTAAAGGACTCCTACTGAAAACAATAAAAGGAACGGCTGTAGTAGATCTCTCTGGGA
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 TGCAGCTGCTATAGATCGAATGGACAAGTATAATTTGATACAATGATATATGTGACAGATAAAGGACAA
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 CAAGAGACTGCAGAGAGGTCGGGCTCGCAGCACTCATTATTCAGGACTTCAAAGGTTTACTCTTATCTG
 ACTACAAGTTCAGCTGGGATCGTGTTCAGAGTTCGCGGGGACACAGGAGTCTTCTACAGTACACACA
 CGCCCGCTCCACAGTTTGAAGAGACTTTGGATGTGGGTACCTGAATGACTTCAACACTGCTTGTTTA
 CAAGAGCCACAGTCTGTTCAATTTCTCAGCATCTTCTCAGGTTTCGACGAGGTGCTTTATAAATCATCTC
 AGGACTTCAACCCAGGCATATCGTCAGTTACCTTCTAACTTTAAGTCATCTTGCAGCTGTGGCACACAA
 AACACTACAAATAAAGATAGTCTCCTGAAGTGGCTGGGCCAGACTTCATCTTTCAAAGCTGTCCGT
 TCTGCTAGCCAATGGAATGAACTTCTTGAATAACACCTGTATGTAGGATG

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203384 representing NM_020320
 Red=Cloning site Green=Tags(s)

MACGFRRAIACQLSRVLNLPENLITSISAVPISQKEEVADFQLSVDSLLEKDNDRPDIQVQAKRLAE
 KLRCDTVVSEISTGQRTVNFKINRELLTKTVLQQVIEDGSKYGLKSELFSGLPQKKIVVEFSSPNVAKKF
 HVGHLRSTIIGNFIANLKEALGHQVIRINYLGDWGMQFGLLGTGFQLFGYEEKLQSNPLQHLFEVYVQVN
 KEAADDKSVAKAAQEFFQRLELGDVQALSLWQKFRDLSIEEYIRVYKRLGVYFDEYSGESFYREKSQEV
 LKLLKESGLLKTIKGTAVVDLSGNGDPSSICTVMRSDGTSLYATRDAAAIDRMDKYNFDTMIYVTDKGG
 KKHFFQVFQMLKIMGYDWAERCQHVPFVGVQGMKTRRGDVTFLQYTHARLHSLEETFQCGYLNDFNACL
 QEPQSVSILQHLRFDEVLYKSSQDFQPRHIVSYLLTLSHLAHAVHKTLLQIKDSPPEVAGARLHLFKAVR
 SVLANGMKLLGITPVCRM

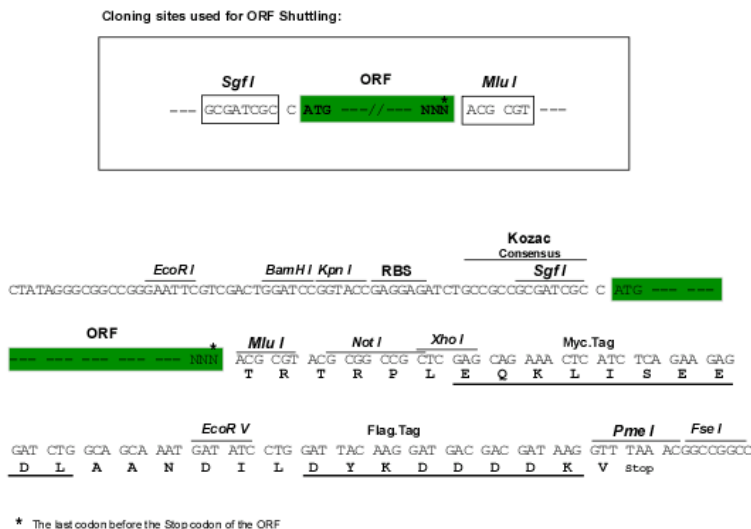
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8112_f02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_020320

ORF Size: 1734 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_020320.5](#)

RefSeq Size: 1848 bp

RefSeq ORF: 1737 bp

Locus ID: 57038

UniProt ID: [Q5T160](#)

Cytogenetics: 6q15

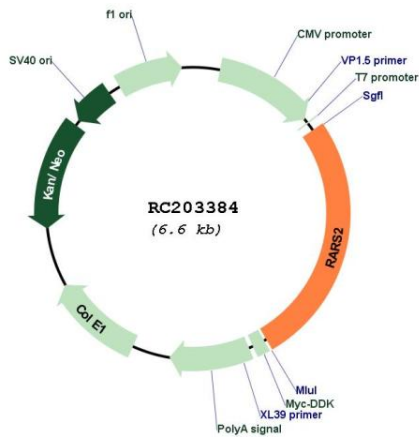
Protein Families: Druggable Genome

Protein Pathways: Aminoacyl-tRNA biosynthesis

MW: 65.5 kDa

Gene Summary: This nuclear gene encodes a protein that localizes to the mitochondria, where it catalyzes the transfer of L-arginine to its cognate tRNA, an important step in translation of mitochondrially-encoded proteins. Defects in this gene are a cause of pontocerebellar hypoplasia type 6 (PCH6). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]

Product images:



Circular map for RC203384