

Product datasheet for **RG204828**

YARS2 (NM_001040436) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	YARS2 (NM_001040436) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	YARS2
Synonyms:	CGI-04; MLASA2; MT-TYRRS; TYRRS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG204828 representing NM_001040436
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGCGCCCATCTTTCGGTCTTTCTGGGGCCGGTGGTCTGGTACCCTAAATCTCTCAGTATTGT
 TGCCTTGGGGCTGCGTAAGGCCCACTCGGGCGCTCAGGGGTTACTGGCAGCGCAGAAGGCTCGAGGCT
 GTTCAAGGACTTCTTCCCGGAGACGGGGACGAAAATAGAGCTCCCAGAGCTCTTCGACCGTGGCAGCGCG
 AGTTTTCCCAAACCATTTACTGTGGCTTCGACCCACGGCAGACTCGCTTCATGTGGGTCATCTACTTG
 CGCTGCTGGGCTGTTTCATTTGCAGCGAGCGGGCCACAACGTGATCGCGCTGGTGGGAGGCCACGGC
 GCGCCTGGGAGACCCGAGCGCCGTACCAAGGAACGCGAGGCGCTGGAGACAGAGCGCTGCGAGCCAAC
 GCGCGAGCTCTGCGCCTAGGGCTTGAAGCCCTGGCGGCTAATCACCAGCAGCTTTTCACTGATGGGCGCT
 CCTGGGCGAGCTTCACTGTGCTGGACAACCTCGGCTGGTACCAGAAGCAGCACCTGGTGGACTTCTGGC
 GGCAGTGGGGGTCACCTCCGCATGGGGACGCTGCTGAGCCGGCAGAGCGTGCAGCTGCGGCTCAAGAGC
 CCCGAGGGCATGAGCTTGGCCGAGTCTTTTACCAGGTGCTCCAGGCCTATGACTTCTATTACCTCTTCC
 AGCGTTATGGATGCAGGGTCCAGCTGGGCGGATCTGATCAACTAGGCAACATCATGTCCGGATATGAGTT
 CATCAACAAGTTGACTGGAGAAGATGTATTTGGAATCACCGTTCCCTAATTACAAGTACAACCTGGAGCA
 AAGCTGGGAAAGTCTGCTGGCAACGCTGTTTGGCTAAACAGAGATAAGACATCTCCATTTGAATTGTATC
 AATTCTTTGTGAGCAACCGGACGATTCAAGTGGAAAGGTACCTGAAGCTGTTCACTTTCTGCCCTTCC
 AGAGATTGATCATATCATGCAGCTGCATGTCAAAGAGCCAGAAAGGCGGGGTCCTCAGAAACGACTGGCA
 GCAGAAGTAACAAAGCTTGTTCATGGACGAGAAGGATTGGATTCTGCTAAAAGGTGTACACAAGCCCTTT
 ATCACAGTAGCATAGATGCAGCTGGAGTCATGTCTGATCAGGAGTTAAAAGAGTTGTTTAAAGAAGCTCC
 ATTTTCTGAATTTTTCTCGATCCTGGAACAAGTGTCTAGATACTTGGCGAAAGCAAATGCCATTCCA
 GATGGTCCCCGAGGGTATCGAATGATAACAGAAGGCGGAGTCAGCATAAATCACCACAAGTAAACAATC
 CTGAGAGTGTTTTAATTGTTGGACAACATATTCTCAAGAATGGACTTTCCTTACTTAAAATAGGAAAAAG
 AAATTTCTACATTATAAAATGGCTTCAGTTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG204828 representing NM_001040436
 Red=Cloning site Green=Tags(s)

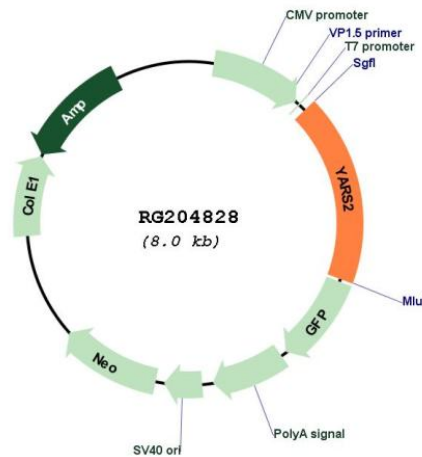
MAAPILRSFSWGRWSGLNLSVLLPLGLRKAHSGAQGLLAAQKARGLFKDFFPETGKIELPELFDRTGA
 SFPQTIYCGFDPTADSLHVGHLALLGLFHLQRAGHNVIALLVGGATARLGDPSGRTKEREALETERVRAN
 ARALRLGLEALAAHQQLFTDGRSWGSFTVLDNSAWYQKQHLVDFLAAVGGHFRMGTLTLLSRQSVQLRLKS
 PEGMSLAEFFYQVLQAYDFYLLFQRYGCRVQLGGSDQLGNIMSGYEFINKLTGEDVFGITVPLITSTTGA
 KLGKSAGNAVWLNDRKTSPELQYFFVRQPDDSVRYLKLFTFLPLPEIDHIMQLHVKEPERRGPQKRLA
 AEVTKLVHGREGLDIAKRTQALYHSSIDALEVMSDQELKELFKEAPFSEFFLDPGTSVLDTCRANAIP
 DGPRGYRMITEGGVSIHQVQVTPESVLIIVQHILKNGLSLLKIGKRNFYIWKWLQ

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_001040436

ORF Size: 1431 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_001040436.3](#)

RefSeq Size: 2179 bp

RefSeq ORF: 1434 bp

Locus ID: 51067

UniProt ID: [Q9Y2Z4](#)

Cytogenetics: 12p11.21

Protein Families: Druggable Genome

Protein Pathways: Aminoacyl-tRNA biosynthesis

Gene Summary: This gene encodes a mitochondrial protein that catalyzes the attachment of tyrosine to tRNA(Tyr). Mutations in this gene are associated with myopathy with lactic acidosis and sideroblastic anemia type 2 (MLASA2). [provided by RefSeq, Jan 2011]