

Product datasheet for **RG205356**

FACL4 (ACSL4) (NM_004458) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FACL4 (ACSL4) (NM_004458) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACSL4
Synonyms:	ACS4; FACL4; LACS4; MRX63; MRX68
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG205356 representing NM_004458
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAAAGAGAATAAAGCTAAGCCACTTCAGACAAACCTGGAAGTCCATATCGCTCTGTCCACACT
 TCGACTCACTAGCTGTAATAGACATCCCTGGAGCAGATACTCTGGATAAAATTATTTGACCATGCTGTATC
 CAAGTTTGGGAAGAAGGACAGCCTTGGGACCAGGAAATCCTAAGTGAAGAAAATGAAATGCAGCCAAAT
 GGAAAAGTTTTAAGAAGTTAATCTTGGGAATTATAAATGGTGAAGTACTCTTGAAGTGAATCGCAGAG
 TGAATAACTTTGGTAGTGGACTCACTGCCTGGGACTAAAACCAAGAACCATTGCCATCTTCTGTGA
 GACCAGGGCCGAATGGATGATTGCAGCAGACACTGCTTAAAGTACAACCTTCTCTGTGACTTTATAT
 GCCACACTTGGCAAAGAAGCAGTAGTTCATGGGCTAAATGAATCTGAGGCTTCTATCTGATTACCAAGT
 TTGAACCTCTGGAAAGTAACTTAAAGCTGCATTGTTAGATATCAGTTGTGTTAAACATATCATTATGT
 GGACAATAAGGCTATCAATAAAGCAGAGTACCCTGAAGGATTTGAGATTCACAGCATGCAATCAGTAGAA
 GAGTTGGGATCTAACCCAGAAAACCTTGGGCATTCTCCAAGTAGACCAACGCCTTCAGACATGGCCATTG
 TTATGTATACTAGTGGTCTACTGGCCGACCTAAGGGAGTGATGATGCATCATAGCAATTTGATAGCTGG
 AATGACAGGCCAGTGTGAAAGAATACCTGGACTGGGACCGAAGGACACATATATTGGCTACTTGCCTTTG
 GCTCATGTGCTAGAACTGACAGCAGAGATATCTTGCTTTACCTATGGCTGCAGGATTGGATATTCTTCTC
 CGCTTACACTCTCTGACCAGTCCAGCAAATTAAGAAAGGAAAGCAAGGAGACTGTACTGTACTGAAGCC
 CACTTATGGCTGCTGTTCCGAAATCATGGATAGAAATTTAAGAATGTTATGAGCAAAGTCCAAGAG
 ATGAATTATTCAGAAAACCTGTTCAAGATAGGGTATGATTACAAATGGAACAGATCAAAAAGGGAT
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 ATATTGGAGAATCCATCCCGATGGATGTTTACAGATTATAGATCGTAAGAAAGATCTAGTGAAGTTACA
 AGCAGGAGAGTATGTATCTTTGGGAAAGTGAAGCTGCACTGAAGAATTGTCCACTTATTGACAACATC
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 TTTTGGCACAACAGAAAGGGTGAAGGAACCTGGGTTGATATCTGCAATAATCCTGCTATGGAAGCTGA
 AATACTGAAAGAAATTCGAGAAGCTGCAATGCCATGAAATTGGAGCGATTTGAAATTCATCAAGGTT
 CGATTAAGCCCAGAGCCATGGACCCCTGAAACTGGTTTGGTAACTGATGCTTTCAAACCTGAAAAGGAAG
 AGCTGAGGAACCATACCTCAAAGACATTGAACGAATGTATGGGGGCAA

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG205356 representing NM_004458
 Red=Cloning site Green=Tags(s)

MAKRKAKPTSDKPGSPYRSVTHFDSLAVIDIPGADTLDKLFDHAVSKFGKKDSLGTREILSEENEMQPN
 GKVFKKLILGNYKWMNYLEVNRVNNFSGSLTALGLKPKNTIAIFCETRAEWMIAAQTCFKYNFPLVTLY
 ATLGKEAVVHGLNESEASYLITSVELLESKLTALLDISCVKHIIYVDNKAINKAEYPEGFEIHSMQSVE
 ELGSPENLGIPPSRPTPSDMAIVMYTSGSTGRPKGVMMHHSNLIAGMTGQCERIPGLGPKDITYIGYLP
 AHVLELTAEISCFYGCRIGYSSPLTLDQSSKIKKSGDCTVLPKPTLMAAVPEIMDRIYKNVMSKVQE
 MNYIQKTLFKIGYDYKLEQIKKGYDAPLNLNLLFKKVKALLGGNVRMMLSGGAPLSPQTHRFMNVCFCCP
 IGQGYGLTESCGAGTVTEVDYTTGRVGAPLICCEIKLKDWEQEGGYTINDKPNRGEIVIGGQNIISMGYF
 KNEEKTAEDYSVDENGQRWFCTGDIGEFHPDGCLQIIDRDKDLVKLQAGEYVSLGKVEAALKNCPLIDNI
 CAFAKSDQSYVVSFVVPNQKRLTLAQQKGVGEGTWDICNNPAMEAEILKEIREANAMKLERFEIPIKV
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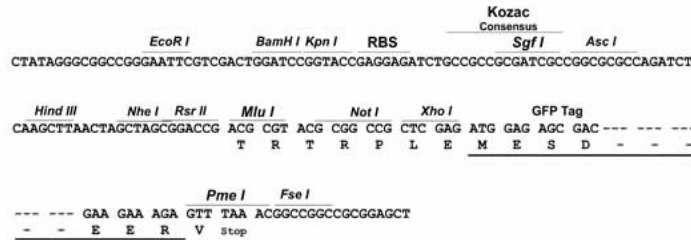
TRTRPLE - GFP Tag - V

Restriction Sites:

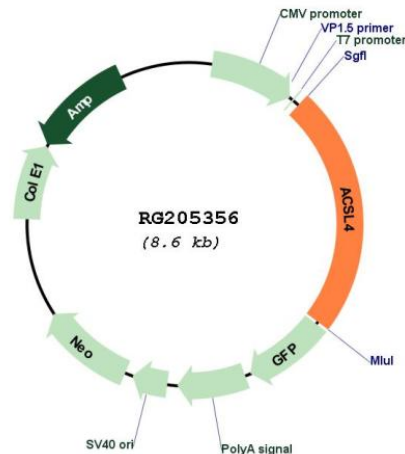
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_004458

ORF Size: 2010 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_004458.1](#), [NP_004449.1](#)

RefSeq Size:	5043 bp
RefSeq ORF:	2013 bp
Locus ID:	2182
UniProt ID:	O60488
Cytogenetics:	Xq23
Domains:	AMP-binding
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Adipocytokine signaling pathway, Fatty acid metabolism, Metabolic pathways, PPAR signaling pathway
Gene Summary:	<p>The protein encoded by this gene is an isozyme of the long-chain fatty-acid-coenzyme A ligase family. Although differing in substrate specificity, subcellular localization, and tissue distribution, all isozymes of this family convert free long-chain fatty acids into fatty acyl-CoA esters, and thereby play a key role in lipid biosynthesis and fatty acid degradation. This isozyme preferentially utilizes arachidonate as substrate. The absence of this enzyme may contribute to the cognitive disability or Alport syndrome. Alternative splicing of this gene generates multiple transcript variants. [provided by RefSeq, Jan 2016]</p>