

## Product datasheet for **RC205356**

### **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:	Myc-DDK
Symbol:	FACL4
Synonyms:	ACS4; FACL4; LACS4; MRX63; MRX68
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC205356 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCAAAGAGAATAAAAGCTAAGCCACTTCAGACAAACCTGGAAGTCCATATCGTCTGTGCACACT  
 TCGACTCACTAGCTGTAATAGACATCCCTGGAGCAGATACTCTGGATAAATTATTTGACCATGCTGTATC  
 CAAGTTTGGGAAGAAGGACAGCCTTGGGACCAGGAAATCCTAAGTGAAGAAAATGAAATGCAGCCAAAT  
 GGAAAAGTTTTAAGAAGTTAATCTTGGGAATTATAAATGGATGAAGTCTTGAAGTGAATCGCAGAG  
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 CGCTTACACTCTCTGACCAGTCCAGCAAAATAAAAAGGAAGCAAGGAGACTGTACTGTACTGAAGCC  
 CACTTATGGCTGCTGTTCCGAAATCATGGATAGAAATTTAAGAATGTTATGAGCAAAGTCCAAGAG  
 ATGAATTATATTCAGAAAACCTGTTCAAGATAGGGTATGATTACAAATGGAACAGATCAAAAAGGGAT  
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 TTTTGGCACAACAGAAAGGGTAGAAGGAACCTGGGTTGATATCTGCAATAATCCTGCTATGGAAGCTGA  
 AATACTGAAAGAAATTCGAGAAGCTGCAATGCCATGAAATTGGAGCGATTTGAAATTCATCAAGGTT  
 CGATTAAGCCCAGAGCCATGGACCCCTGAAACTGGTTTGGTAACTGATGCTTTCAAACCTGAAAAGGAAG  
 AGCTGAGGAACCATACCTCAAAGACATTGAACGAATGTATGGGGGCAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC205356 protein sequence  
Red=Cloning site Green=Tags(s)

```
MAKRKAKPTSDKPGSPYRSVTHFDSLAVIDIPGADTLDKLFDHAVSKFGKKDSLGTREILSEENEMQPN
GKVFKKLILGNYKWMNYLEVNRVNNFSGSLTALGLKPKNTIAIFCETRAEWMIAAQTCFKYNFPLVTLY
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AHVLELTAEISCFYGCRIGYSSPLTLDQSSKIKKGGKGDCTVLKPTLMAAVPEIMDRIYKNVMSKVQE
MNYIQKTLFKIGDYKLEQIKKGYDAPLCNLLLFFKKVKALLGGNVRMMLSGGAPLSPQTHRFMNVCFCCP
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KNEEKTAEDYSVDENGQRWFCTGDIGEFHPDGCLQIIDRKKDLVKLQAGEYVSLGKVEAALKNCPLIDNI
CAFASDQSYVVISFVVPNQKRLTLAQQKGVGEGTWVDICNNPAMEAEILKEIREAANAMKLERFEIPIKV
RLSPEPWPETGLVTDFAFKLKRKELRNHYLKDIERYGGK
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6201\\_e11.zip](https://cdn.origene.com/chromatograms/mk6201_e11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_004458.3](#)

**RefSeq Size:** 5039 bp

**RefSeq ORF:** 2013 bp

**Locus ID:** 2182

**UniProt ID:** [O60488](#)

**Cytogenetics:** Xq23

**Domains:** AMP-binding

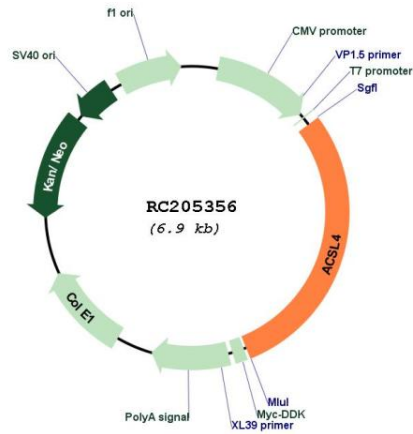
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Adipocytokine signaling pathway, Fatty acid metabolism, Metabolic pathways, PPAR signaling pathway

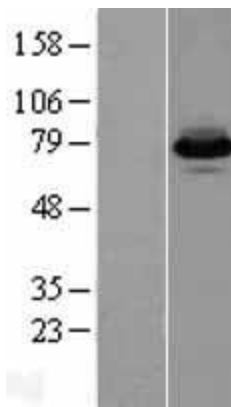
**MW:** 74.4 kDa

**Gene Summary:** 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]

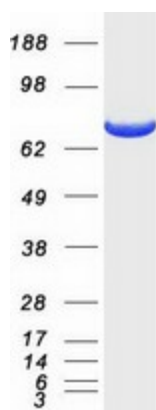
Product images:



Circular map for RC205356



Western blot validation of overexpression lysate (Cat# [LY401417]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205356 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACSL4 protein (Cat# [TP305356]). The protein was produced from HEK293T cells transfected with ACSL4 cDNA clone (Cat# RC205356) using MegaTran 2.0 (Cat# [TT210002]).