

Product datasheet for **RC221033**

FATP2 (SLC27A2) (NM_003645) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FATP2 (SLC27A2) (NM_003645) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FATP2
Synonyms:	ACSVL1; FACVL1; FATP2; hFACVL1; HsT17226; VLACS; VLCS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221033 representing NM_003645
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGCTTTCCGCCATCTACACAGTCTGGCGGGACTGCTGTTCTGCCGCTCTGGTGAACCTCTGCTGCC
 CATACTTCTTCCAGGACATAGGCTACTTCTGAAGGTGGCCGCCGTGGGCGGAGGGTGCCAGCTACGG
 GAAGCGCGGCCGCGCCACCATCCTGCGGGCGTTCCTGGAGAAAGCGGCCAGACGCCACACAAGCCT
 TTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGCAGGTGGACCGGCCAGCAATCAAGTGGCCCGG
 CGCTGCACGACCCTCGGCTGCGCCAGGAGACTGCGTGGCGCTCTTATGGGTAACGAGCCGCGCTA
 CGTGTGGCTGTGGCTGGGCTGGTGAAGCTGGCTGTGCCATGGCGTGCCTCAATTACAACATCCGCGCG
 AAGTCCCTGCTGACTGCTTCCAGTGTGCGGGCGAAGGTGCTGCTGGTGTGCCAGAACTACAAGCAG
 CTGTGCAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGCCATCTATTATGTGAGCAGAACTCTAA
 CACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCCAGAGTATGG
 AGGTCTGAAGTCACTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAAAAG
 CAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCTCACTTTTGAAGCGGATTGAAGGCAGA
 TGATGTCACTATATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACCGGATGTATT
 GTGGCTGGTGTACTCTTGCCTTGGCGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAAT
 ACAACGCTCACTGTCACTCAGTATATCGGTGAAGTGTCTCGGTATTTATGCAACTCACCACAGAAACAAA
 TGACCGTGATCATAAAGTGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTC
 AAGAGATTTGGGACATATGCATCTATGAGTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATT
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 AATGGTTGACCATGAAAAATTTCTATTTCCACGACAGAGTTGGAGATACATTCGGTGGAAAAGGGGAA
 AATGTGGCCACCCTGAAGTTGCTGATACAGTTGGACTGGTTGATTTTGTCCAAGAAGTAAATGTTTATG
 GAGTGCATGTGCCAGATCATGAGGTCGATTGGCATGGCCTCCATCAAATGAAAGAAAACCATGAATT
 TGATGAAAGAAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCGGTTTCTAAGA
 ATACAGGACACCATTGAGATCACTGGAACCTTTAAACACCGCAAATGACCCTGGTGGAGGAGGGCTTTA
 ACCTGCTGTCAAAAGATGCCTGTATTTCTGGATGACACAGCAAATGTATGTGCCATGACTGA
 GGACATCTATAATGCCATAAGTGCTAAAACCCTGAAACTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221033 representing NM_003645
 Red=Cloning site Green=Tags(s)

MLSAIYTVLAGLLFLLVNLCCPYFFQDIGYFLKVAAVGRRVRSYGKRRPARTILRAFLEKARQTPHKP
 FLLFRDETLTYAQVDRRSNQVARALHDHLGLRQGDVALLMGNEPAYVWLWGLVKLGCAMACLNYNIRA
 KSL LHCFQCCGAKVLLVSPQLQAAVEEILPSLKKDDVSIYVVSRTSNTDIDSFLDKVDEVSTEPIPESW
 RSEVTFSTPALYIYTSGTTGLPKAAMITHQRIWYGTGLTFVSLKADDDVIYITLPHYSAALLIGIHGCI
 VAGATLALRTKFSASQFWDRCRKYNVTVIQYIGELLRYLNCSPQKPNDRDHKVRLLALGNLGRDGVWRQFV
 KRFGDICIYEFYAATEGNIGFMNYARKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPG
 EVGLLVCKITQLTPFNGYAGAKAQTEKKLRDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRFRWKE
 NVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIGMASIKMKENHEFDGKLFQHIADYLPYSYARPRFLR
 IQDTIEITGTGFKHRKMTLVEEGFNPAVIKDALYFLDDTAKMYVPMTEIYNAISAKTLKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6492_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003645

ORF Size: 1860 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.

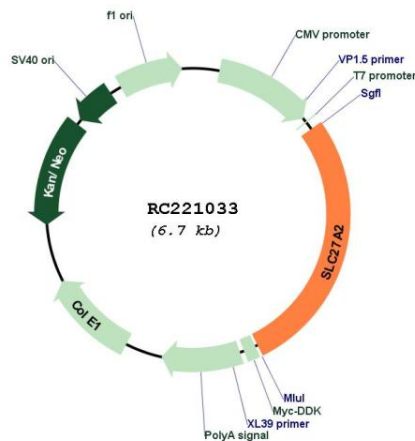
RefSeq: [NM_003645.4](#)

RefSeq Size: 2343 bp

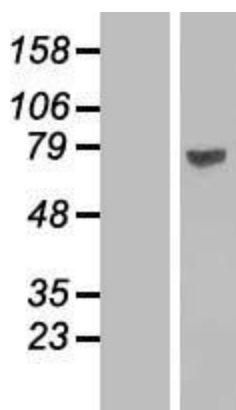
RefSeq ORF: 1863 bp
Locus ID: 11001
UniProt ID: [O14975](#)
Cytogenetics: 15q21.2
Domains: AMP-binding
Protein Families: Transmembrane
Protein Pathways: PPAR signaling pathway
MW: 70.1 kDa

Gene Summary: The protein encoded by this gene is an isozyme of 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 activates long-chain, branched-chain and very-long-chain fatty acids containing 22 or more carbons to their CoA derivatives. It is expressed primarily in liver and kidney, and is present in both endoplasmic reticulum and peroxisomes, but not in mitochondria. Its decreased peroxisomal enzyme activity is in part responsible for the biochemical pathology in X-linked adrenoleukodystrophy. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2009]

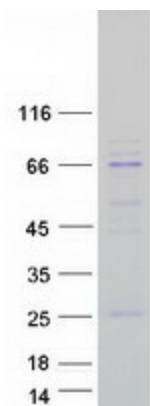
Product images:



Circular map for RC221033



Western blot validation of overexpression lysate (Cat# [LY418528]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221033 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SLC27A2 protein (Cat# [TP321033]). The protein was produced from HEK293T cells transfected with SLC27A2 cDNA clone (Cat# RC221033) using MegaTran 2.0 (Cat# [TT210002]).