

## Product datasheet for **RG221033**

### **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:	TurboGFP
Symbol:	FATP2
Synonyms:	ACSVL1; FACVL1; FATP2; hFACVL1; HsT17226; VLACS; VLCS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG221033 representing NM\_003645  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTTTCCGCCATCTACACAGTCTGGCGGGACTGCTGTTCTGCCGCTCTGGTGAACCTCTGCTGCC  
 CATACTTCTTCCAGGACATAGGCTACTTCTGAAGGTGGCCGCCGTGGCCGAGGGTGCAGCTACGG  
 GAAGCGCGGCCGCGCCACCATCCTGCGGGCTTCTGGAGAAAGCGGCCAGACGCCACACAAGCCT  
 TTTCTGCTTCCGCGACGAGACTCTCACCTACGCGCAGGTGGACCGCGCAGCAATCAAGTGGCCCGGG  
 CGCTGCACGACCCTCGCCTGCGCCAGGAGACTGCGTGGCGCTCCTTATGGGTAACGAGCCGCGCTA  
 CGTGTGGCTGTGGCTGGGCTGGTGAAGCTGGCTGTGCCATGGCGTGCCTCAATTACAACATCCGCGCG  
 AAGTCCCTGCTGACTGCTTCCAGTGTGCGGGCGAAGGTGCTGCTGGTGTGCCAGAACTACAAGCAG  
 CTGTGCAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGCCATCTATTATGTGAGCAGAACTCTAA  
 CACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCCAGAGTATGG  
 AGGTCTGAAGTCACTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACCACAGGTCTTCCAAAAG  
 CAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCTCACTTTTGAAGCGGATTGAAGGCAGA  
 TGATGTCTATATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACCGGATGTATT  
 GTGGCTGGTGTACTCTTGCCTTGGCGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAAT  
 ACAACGCTCACTGTCACTCAGTATATCGGTGAAGTGTCTCGGATTTATGCAACTCACCACAGAAACAAA  
 TGACCGTGATCATAAAGTGAAGTGGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGC  
 AAGAGATTTGGGACATATGCATCTATGAGTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATT  
 ATGCGAGAAAAGTTGGTGTGTTGGAAGAGTAACTACCTACAGAAAAAATCATAACTTATGACCTGAT  
 TAAATATGATGTGGAGAAAGATGAACCTGTCCGTGATGAAAATGGATATTGCGTCAAGATTTCCCAAAGGT  
 GAAGTTGACTTCTGGTTTGCAAAATCACACAACCTACACCATTTAATGGCTATGCTGGAGCAAAGGCTC  
 AGACAGAGAAGAAAAACTGAGAGATGTCTTAAAGAAAGGAGACCTCTATTTCAACAGTGGAGATCTCTT  
 AATGGTTGACCATGAAAAATTTCTATTTCCACGACAGAGTTGGAGATACATCCGGTGGAAAAGGGGAA  
 AATGTGGCCACCCTGAAGTTGCTGATACAGTTGGACTGGTTGATTTTGTCCAAGAAGTAAATGTTTATG  
 GAGTGCATGTGCCAGATCATGAGGTCGATTGGCATGGCCTCCATCAAATGAAAGAAAACCATGAATT  
 TGATGAAAGAAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCGGTTTCTAAGA  
 ATACAGGACACCATTGAGATCACTGGAACCTTTAAACACCGCAAATGACCCTGGTGGAGGAGGGCTTTA  
 ACCTGTGTGCATCAAAGATGCCTGTATTTCTGGATGACACAGCAAATGTATGTGCCATGACTGA  
 GGACATCTATAATGCCATAAGTGCTAAAACCCTGAAACTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG221033 representing NM\_003645  
 Red=Cloning site Green=Tags(s)

MLSAIYTVLAGLLFLLVNLCCPYFFQDIGYFLKVAAVGRRVRSYGKRRPARTILRAFLEKARQTPHKP  
 FLLFRDELTLYAQVDRRSNQVARALHDHLGLRQGDVALLMGNEPAYVWLWLGLVKLGCAMACLNYNIRA  
 KSL LHCFQCCGAKVLLVSPQLQAAVEEILPSLKKDDVSIYVSRSTNDGIDSFLDKVDEVSTPIPE  
 RSEVTFSTPALYIYTSGTTGLPKAAMITHQRIWYGTGLTFVSLKADDVIYITLPHYHSAALLIGIHGCI  
 VAGATLALRTKFSASQFWDRCRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLLALGNLGRDVRQFV  
 KRFGDICIYEFYAATEGNIGFMNYARKVAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPG  
 EVGLLVCKITQLTPFNGYAGAKAQTEKKLRDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRWKG  
 NVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIGMASIKMKENHEFDGKLFQHIADYLPYARPRFLR  
 IQDTIEITGTFKHKMTLVEEGFNPVAVIKDALYFLDDTAKMYVPMTEDIYNAISAKTLKL

**TRTRPLE** – GFP Tag – V

**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

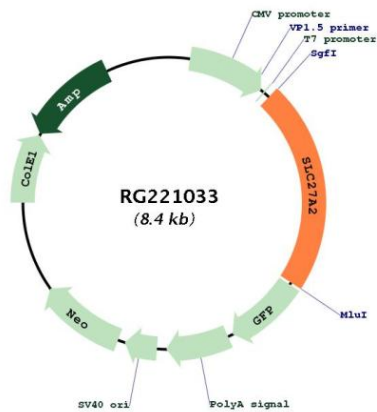
**RefSeq ORF:** 1863 bp

**Locus ID:** 11001

**UniProt ID:** [O14975](#)  
**Cytogenetics:** 15q21.2  
**Domains:** AMP-binding  
**Protein Families:** Transmembrane  
**Protein Pathways:** PPAR signaling pathway  
**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 RG221033