

Product datasheet for **SC125514**

ABCD1 (NM_000033) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ABCD1 (NM_000033) Human Untagged Clone
Tag: Tag Free
Symbol: ABCD1
Synonyms: ABC42; ALD; ALDP; AMN
Vector: pCMV6-XL5
E. coli Selection: Ampicillin (100 ug/mL)
Cell Selection: None
Fully Sequenced ORF: >OriGene sequence for NM_000033 edited

```
GCCAGGCTGCGGAGCGGACGCGCCTGGTGCCTCCGGGAGGGGCGCCACCGGGGAG
GAGGAGGAGGAGAAGGTGGAGAGGAAGAGACGCCCTCTGCCCGAGACCTCTCAAGCC
CTGACCTCAGGGGCCAGGGCACTGACAGGACAGGAGAGCCAAGTTCTCCACTTGGGCTG
CCCGAAGAGGCCGCGACCCTGGAGGGCCCTGAGCCACCGCACCAGGGGCCCCAGACCA
CCCCGGGGGCTAAAGCGACAGTCTCAGGGGCCATCGAAGGTTTCCAGTTGCCTAGACA
ACAGGCCAGGGTCAGAGCAACAATCCTTCCAGCCACCTGCCTCAACTGCTGCCCGAGG
ACCAGCCCCAGTCCCTACGCGGCAGCCAGCCAGGTGACATGCCGGTGTCTCCAGGCC
CGGCCCTGGCGGGGAACACGCTGAAGCGCACGGCCGTGCTCCTGGCCCTCGCGGCTAT
GGAGCCACAAAGTCTACCCCTTGGTGCGCCAGTGCCTGGCCCCGCGCCAGGGTCTTCAG
GGCCCCGCGGGGAGCCACGCAGGAGGCTCCGGGGTCCGGCGGCCAAAGCTGGCATG
AACCGGTATTCTGCAGCGGCTCCTGTGGCTCCTGCGGCTGCTGTTCCCCGGGTCTG
TGCCGGGAGACGGGGTCTGTCGCCCTGCACTCGGCCGCTTGGTGGAGCCGACCTTCTG
TCGGTGTATGTGGCCCGCTGGACGGAAGGCTGGCCCGCTGCATCGTCCGCAAGGACCCG
CGGGCTTTTGGCTGGCAGCTGCTGCAGTGGCTCCTCATCGCCCTCCCTGCTACCTTCGT
AACAGTGCCATCCGTTACCTGGAGGGCCAACCTGGCCCTGTCGTTCCGAGCCGCTGGTG
GCCCAGCCTACCGCCTACTTCTCCAGCAGACCTACTACCGGGTCAAGCAACATGGAC
GGCGGGCTTCGCAACCCTGACCAGTCTCTGACGAGGACGTGGTGGCCTTTGCGGCTCT
GTGGCCACCTCTACTCAACCTGACCAAGCCACTCCTGGACGTGGCTGTGACTTCTAC
ACCCTGCTTCGGGCGGCCGCTCCCGTGGAGCCGGCACAGCCTGGCCCTCGGCCATCGCC
GGCCTCGTGGTGTCTCACGGCCAACGTGCTGCGGGCTTCTCGCCAAAGTTCCGGGAG
CTGGTGGCAGAGGAGGCGCGCGGAAGGGGGAGCTGCGCTACATGCACTCGCGTGTGGT
GCCAACTCGGAGGAGATCGCCTTCTATGGGGCCATGAGGTGGAGCTGGCCCTGCTACAG
CGCTCCTACCAGGACCTGGCCTCGCAGATCAACCTCATCTTCTGGAACGCTGTGGTAT
GTTATGCTGGAGCAGTTCCTCATGAAGTATGTGTGGAGCGCCTCGGGCTGCTCATGGT
GCTGTCCCATCATCACTGCCACTGGCTACTCAGAGTCAGATGCAGAGGCGGTGAAGAAG
GCAGCCTTGAAAAGAAGGAGGAGGCTGGTGGAGCGAGCGCACAGAAGCCTTCACTATT
GCCCGCAACCTCTGACAGCGGCTGCAGATGCCATTGAGCGGATCATGTCGTCGTACAAG
```



[View online >](#)

GAGGTGACGGAGCTGGCTGGCTACACAGCCCGGTGCACGAGATGTTCCAGGTATTTGAA
 GATGTTACAGCGTGTCACTTCAAGAGGCCAGGGAGCTAGAGGACGCTCAGGCGGGTCT
 GGGACCATAGGCCGGTCTGGTGTCCGTGTGGAGGGCCCCCTGAAGATCCGAGGCCAGGTG
 GTGGATGTGGAACAGGGGATCATCTGCGAGAACATCCCCATCGTCACGCCCTCAGGAGAG
 GTGGTGGTGGCCAGCCTCAACATCAGGGTGGAGGAAGGCATGCATCTGCTCATCACAGGC
 CCCAATGGCTGCGGCAAGAGCTCCCTGTTCCGGATCCTGGGTGGGCTCTGGCCCACGTAC
 GGTGGTGTGCTCTACAAGCCCCACCCACAGCGCATGTTCTACATCCCCGAGAGGCCCTAC
 ATGCTGTGGGGTCCCTGCGTGACCAGGTGATCTACCCGACTCAGTGGAGGACATGCAA
 AGGAAGGGCTACTCGGAGCAGGACCTGGAAGCCATCCTGGACGTCGTGCACCTGCACCAC
 ATCCTGCAGCGGGAGGGAGGTTGGGAGGCTATGTGTGACTGGAAGGACGTCCTGTCGGGT
 GGCGAGAAGCAGAGAATCGGCATGGCCGCATGTTCTACCACAGGCCAAGTACGCCCTC
 CTGGATGAATGCACCAGCGCCGTGAGCATCGACGTGGAAGGCAAGATCTCCAGGCGGCC
 AAGGACCGGGCATTGCCCTGCTCTCCATCACCACCGGCCCTCCCTGTGGAAATACCAC
 ACACACTTGCTACAGTTCGATGGGAGGGCGGCTGGAAGTTCGAGAAGCTGGACTCAGCT
 GCCCGCTGAGCCTGACGGAGGAGAAGCAGCGGCTGGAGCAGCAGCTGGCGGGCATTCCC
 AAGATGCAGCGGGCCTCCAGGAGCTCTGCCAGATCCTGGGCGAGGCCGTGGCCCCAGCG
 CATGTGCCGGCACCTAGCCCCAAGGCCCTGGTGGCTCCAGGGTGCCTCCACCTGACAC
 AACCGTCCCCGGCCCCCTGCCCGCCCCAAGCTCGGATACATGAAGGAGACAGCAGCAC
 CCACCCATGCACGCACCCCGCCCTGCATGCCTGGCCCCCTCCTCTAGAAAACCTTCCC
 GCCCTCGGAAAGTAGATGTGGAGGGTGGCGCCCTGCGTAACCTCGCCCTGTCCCTCCC
 ACTCCCTGGGGCGCTGTTCCACAGTACTGGGCCCTGTCCAGGGCAGTGAAGTCTCTAC
 TTTGCTCCGTGGAGGAAGCTGGGGTACAAGGGGCCAGTGTGCCACACAGCAGCGCAG
 CCGAGCCCCAGGAGCCCGTCAGGCCACAGCCCCTGGCAGTGCAGGTGGCCTCCCTCCAGA
 GACTCGAGTCCCATGATTCCCTCCTCATCAGTCTCTCAAAGACCCCATGGTCCATCCCC
 TGAGGGTGGTACGCCAAGGCTCCCGTTCGTGGGATGCCATAAAAGCCGCCAGTGGGAC
 CCACAGTCACACAGAGCGCCTCACCTGCATCCTCTCCCCACAAGAGCCCCAAAGATCCC
 ACGGGAGAGGGGAGAGGGACGCACAGCACTGCCTGCCAAGCGAGAATGCAGGCCCGCCC
 CCTCGGCCCTCACACCTCTTTCTACAGCCTAATTTATTGGATTCCCTATTCTAGCCA
 TCTCCGTGGCCAATGTGACTACCGTGCCAGCAGCGGGGGCGGCCAGCCTCTGAGTCCCG
 TGGGGCCCCGGCTCCCACCGGTGCCAAACCCAGCCCCGCGGCCCTCACCCGCCAGCCT
 AACTGCCAGCCGCCACCGGGGCACACGGGCCCTGCTTGCCAGCCAGGAGTGGCGACAC
 CATGTTCCAGCTCAGTGCCAAAGAGGGGTACCAGGGGGAGCTGTCTGCGGAGCCAGCG
 CCTGCCCGAGAGAGACCCACCGCCACCGTGTGCCTTTCCCGGGCCCTCAGCCCTCGGGC
 CGGGCACCCCCAGTCCCCCAGTAAAAGCCTCCACTGGCAAATGCAGTCTTCTCTCC
 CTGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000033 unedited
 TTCGGTTCATATTTGTATACGACTCACTATAGGGCGCCGCGTAATTCGCACGAGGGCCAG
 GCTGCGGAGCGGACGGACGCGCCTGGTGCCTCGGGGAGGGGCGCCACCGGGGAGGAGGA
 GGAGGAGAAGGTGGAGAGGAAGAGACGCCCCCTCTGCCCGAGACCTCTCAAGGCCCTGAC
 CTCAGGGGCCAGGGCACTGACAGGACAGGAGAGCAAGTTCTCCACTTGGGCTGCCCGA
 AGAGGCCGCGACCCTGGAGGGCCCTGAGCCACCCAGGAGGGCCAGCACCACCCCG
 GGGGCCTAAAGCGACAGTCTCAGGGCCATCGCAAGGTTTCCAGTTGCCTAGACAACAGG
 CCCAGGGTCAGAGCAACAATCCTTCCAGCCACCTGCCTCAACTGCTGCCCCAGGCACCAG
 CCCCAGTCCCTACGCGGCAGCCAGCCAGGTGACATGCCGGTGTCTCCAGGCCCGGCC
 CTGGCGGGGAACACGCTGAAGCGCACGGCCGTGCTCCTGGCCCTCGCGGCCTATGGAGC
 CCACAAAGTCTACCCCTTGGTGCGCCAGTGCCTGGCCCCGGCCAGGGGTCTTCAGGCGCC
 CGCCGGGAGCCACGCAGGAGGCTCCGGGTGCGGGCGGCCAAAGCTGGCATGAACCG
 GGTATTCTGCAGCGCTCCTGTGGCTCCTGCGGCTGCTGTTCCCCGGGTCTGTGCCG
 GGAGACGGGGTGTGGCCCTGCACTCGGCCGCTTGGTGGAGCCGACCTTCTGTCCGT
 GTATGTGGCCCCGCTGGACGGAAGGCTGGCCCCGCTGCATCGTCCGCAAGGACCCGCG
 CTTTTGGTGCAGCTGCTGCAGTGGCTCCCTATCGCCCTCCTGCTACCTTCTCAAAG
 TGCC

Restriction Sites:	NotI-NotI
ACCN:	NM_000033
Insert Size:	3700 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	no
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:	<ol style="list-style-type: none">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_000033.2 , NP_000024.2
RefSeq Size:	3616 bp
RefSeq ORF:	2238 bp
Locus ID:	215
UniProt ID:	P33897
Cytogenetics:	Xq28
Domains:	ABC_tran, AAA

Protein Families: Druggable Genome

Protein Pathways: ABC transporters

Gene Summary: The protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the ALD subfamily, which is involved in peroxisomal import of fatty acids and/or fatty acyl-CoAs in the organelle. All known peroxisomal ABC transporters are half transporters which require a partner half transporter molecule to form a functional homodimeric or heterodimeric transporter. This peroxisomal membrane protein is likely involved in the peroxisomal transport or catabolism of very long chain fatty acids. Defects in this gene have been identified as the underlying cause of adrenoleukodystrophy, an X-chromosome recessively inherited demyelinating disorder of the nervous system. [provided by RefSeq, Jul 2008]