OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC310135

ABCD2 (NM_005164) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABCD2 (NM_005164) Human Untagged Clone
Tag:	Tag Free
Symbol:	ABCD2
Synonyms:	ABC39; ALDL1; ALDR; ALDRP; hALDR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>SC310135 representing NM_005164.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGACACATATGCTAAATGCAGCAGCTGATCGAGTGAAATGGACCAGATCGAGTGCTGCTAAGAGGGCT
GCCTGCCTGGTGGCTGCGGCATATGCTCTGAAAACCCTCTATCCCATCATTGGCAAGCGTTTAAAGCAA
TCTGGCCACGGGAAGAAAAAAGCAGCAGCTTACCCTGCTGCAGAGAACACAGAAATACTGCATTGCACC
GAGACCATTTGTGAAAAACCTTCGCCTGGAGTGAATGCAGATTTCTTCAAACAGCTACTAGAACTTCGG
AAAATTTTGTTTCCAAAACTTGTGACCACTGAAACAGGGTGGCTCTGCCTGCACTCAGTGGCTCTAATC
TCAAGAACCTTTCTTTCTATCTATGTGGCTGGTCTGGATGGAAAAATCGTGAAAAGCATTGTGGAAAAG
AAGCCTCGGACTTTCATCATCAAATTAATCAAGTGGCTTATGATTGCCATCCCTGCTACCTTCGTCAAC
AGTGCAATAAGGTACCTGGAATGCAAATTGGCTTTGGCCTTCAGAACTCGCCTAGTAGACCACGCCTAT
GAAACCTATTTTACAAATCAGACTTATTATAAAGTGATCAATATGGATGGGAGGCTGGCAAACCCTGAC
CAATCTCTTACGGAGGATATTATGATGTTCTCCCAATCTGTGGCTCACTTGTATTCCAATCTGACCAAA
CCTATTTTAGATGTAATGCTGACCTCCTATACACTCATTCAAACTGCTACATCCAGAGGAGCAAGCCCA
ATTGGGCCCACCCTACTAGCAGGACTTGTGGTGTATGCCACTGCTAAAGTGTTAAAAGCCTGTTCTCCC
AAATTTGGCAAACTGGTGGCAGAGGAAGCACATAGAAAAGGCTATTTGCGGTATGTGCACTCGAGAATT
ATAGCCAATGTAGAAGAAATTGCCTTTTACAGAGGACATAAGGTAGAAATGAAACAACTTCAGAAAAGT
TACAAAGCTTTAGCAGATCAGATGAACCTCATTTTATCCAAACGTTTGTGGTACATCATGATAGAACAG
TTCCTGATGAAGTATGTTTGGAGCAGCAGTGGACTAATTATGGTGGCTATACCTATTATCACTGCAACT
GGCTTTGCAGATGGTGAGGATGGCCAAAAGCAAGTTATGGTTAGTGAACGGACAGAAGCCTTTACCACT
GCTCGAAATTTACTGGCCTCTGGAGCTGATGCTATTGAAAGGATTATGTCTTCATACAAAGAGGTCACT
GAATTAGCAGGCTACACTGCTCGAGTGTACAATATGTTTTGGGTCTTTGATGAAGTAAAAAGAGGCATT
TATAAGAGAACTGCTGTCATTCAAGAATCTGAAAGCCATAGCAAGAATGGAGCTAAGGTAGAATTACCT
CTCAGTGACACATTGGCAATTAAAGGAAAAGTTATTGATGTGGATCACGGAATTATTTGTGAAAATGTT
CCCATAATTACACCAGCAGGAGAAGTGGTGGCTTCCAGGCTAAACTTCAAAGTAGAAGAAGGAATGCAT
CTTTTGATAACTGGTCCCAATGGTTGTGGGAAAAGTTCTCTCTTCAGAATTCTAAGTGGGCTCTGGCCT
GTGTATGAAGGAGTCCTCTATAAACCACCTCCTCAACATATGTTTTATATTCCACAAAGGCCATATATG
TCTCTTGGAAGTCTTCGGGATCAAGTCATTTACCCTGATTCAGTGGATGATATGCATGATAAAGGTTAT
ACAGACCAAGATCTGGAACGTATCCTACACAATGTCCATCTCTATCACATAGTTCAAAGAGAAGGAGGA
TGGGATGCTGTTATGGACTGGAAAGATGTCCTGTCAGGAGGGGAAAAGCAAAGAATGGGCATGGCTCGT
ATGTTTTATCATAAACCAAAATATGCCTTGCTGGATGAATGTACCAGTGCTGTCAGCATTGATGTCGAA
GGAAAGATATTTCAGGCTGCAAAAGGGGCTGGAATTTCCTTACTGTCTATAACACACAGACCTTCTCTT
TGGAAATACCACACACATTTATTACAGTTTGATGGTGAAGGAGGTTGGCGCTTTGAACAATTGGATACT
GCTATCCGTTTGACATTGAGTGAAGAAAAACAAAAGCTAGAATCTCAGCTAGCTGGAATTCCCAAAATG
CAGCAGAGACTCAATGAACTATGTAAAATTTTGGGAGAAGACTCAGTGCTGAAAACAATTAAAAATGAA
GATGAGACATCTTAA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI

ACCN: NM_005164

Insert Size: 2223 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:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_005164.3
RefSeq Size:	5341 bp
RefSeq ORF:	2223 bp
Locus ID:	225
UniProt ID:	Q9UBJ2
Cytogenetics:	12q12
Domains:	ABC_tran, AAA
Protein Families:	Druggable Genome
Protein Pathways:	ABC transporters
MW:	83.2 kDa
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. The function of this peroxisomal membrane protein is unknown; however this protein is speculated to function as a dimerization partner of ABCD1 and/or other peroxisomal ABC transporters. Mutations in this gene have been observed in patients with adrenoleukodystrophy, a severe demyelinating disease. This gene has been identified as a candidate for a modifier gene, accounting for the extreme variation among adrenoleukodystrophy phenotypes. This gene is also a candidate for a complement group of Zellweger syndrome, a genetically heterogeneous disorder of peroxisomal biogenesis. [provided by RefSeq, Jul 2008]