

Product datasheet for **MR210364**

Abcd1 (NM_007435) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Abcd1 (NM_007435) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Abcd1
Synonyms:	A; Ald; Aldgh; ALDP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR210364 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCGGTGTCTCCACTCCCCGGCCCTCACGGGTGACCACGCTGAAGCGCACAGCTGTGGTCTTGCCCC
 TCACAGCCTATGGAGTCCACAAAATCTACCCTCTAGTACGGCAGTGTCTGACTCCTGCCAGAGGTCCTCA
 GGTGCCAGCTGGGGAGCCCACTCAAGAGGCCTCTGGAGCCACCGCAACCAAGGCTGGCATGAACCGGTA
 TTCCTGCAGCGGCTCTTGGCGCTCTGAGGCTGTGTTCCCCGAGTCTTGTGCCGGAAACAGGGCTGC
 TGGCCCTGCATTCTGCTGCCCTGGTAAGCCGAACCTTCTGTCTGTGTATGTTGCCCGCCTGGACGGCAG
 ACTGGCCCGCTGCATTGTACGTAAGGACCCGCGGGCCTTAGCTGGCAACTGCTGCAGTGGCTCCTCATC
 GCCCTTCTGCCACTTTCATCAACAGTCCATCCGCTACCTAGAGGGCCAGCTGGCTCTTCTTTCCGAA
 GCCGTCTAGTAGCTCATGCCTATGGACTCTACTTCTCCAACAGACTTACTACCGAGTAAGCAACATGGA
 TGGACGACTTCGAAACCCTGATCAGTCTCTGACAGAGGATGTGGTAGCCTTTGCTGCCTCTGTAGCCAC
 CTTTATTCCAACCTGACCAAGCCACTCCTGGATGTGGCTGTGACCTCCTACACTCTCCTTCGAGTGCCC
 GATCCCGAGGAGCTGGCACAGCCTGGCCCTCAGCCATCGCTGGCCTGGTGGTGTCTCAGACCAACGT
 GCTTCGAGCCTTCTCTCCAAGTTTGGGGAGCTAGTGGCAGAGGAGGCACGGCGAAAGGGGGAAGTGC
 TACATGCACTCTCGAGTGGTGGCAACTCAGAGGAAATTGCCCTTACGGGGGCCATGAGGTGGAAGTGG
 CACTACTACAGCACTCCTATCAAGACCTAGCTTACAGATCAACCTATCCTGCTTGAGCGCCTATGGTA
 TGTGATGCTGGAACAGTTCCTCATGAAATATGTGTGGAGTGCATCTGGCCTGCTCATGGTAGCTGTCCC
 AAGAGGAGCTGGTTAGTGAGCGTACAGAAGCTTTCACCATGCCCCGAAACCTCCTCACAGTCTGCAGA
 TGCCACCGAAAGGATCATGTCTTATAAAGGAGGTGACAGAGCTGGCTGGCTACACAGCCAGGGTGTAC
 GAGATGTTCCAGGTATTTGAAGATGTCAAACACTGTCGTTTTAAGAGGACAGGAGATCTAGAGGAGGCTC
 AGGCTGGGCTGGGGTACGTTACAGTCTGGTGTCCATGTAGAGGGGCCCTGAAGATCCAAGGCCAAGT
 TGTGGATGTGGAGCAGGGGATCATCTGTGAGAACATCCCTATCATCACACCCACTGGAGAGGTGGTGGT
 GCCAGCCTCAACATCAGGGTGGAGGAAGGCATGCACCTGCTCATCACAGGCCCAATGGCTGTGGCAAGA
 GTTCTCTGTTCCGAATCCTAGGTGGACTCTGGCCACATACAGTGGTGTACTCTATAAGCCCCACCCCA
 GCGCATGTTCTATATCCCTCAGAGGCCCTACATGTCCGTGGGCTCCTTGGCTGACCAAGTATCTATCCC
 GACTCTGCGGAAGACATGCGGAGGAAGGGCTGCTCGGAGCAGCAGCTGGAAGCAATCCTGGGCATCGTGC
 ATCTCCGCCACATCCTGCAACGGGAGGGAGGTTGGGAGGCAAGTGTGACTGGAAGGACGCTCCTGTCTGG
 AGGTGAGAAGCAGAGGATTGGTATGGCGCGCATGTTCTACCACAGGCCCAAGTACGCCCTCCTGGATGAG
 TGCACTAGTGGCGTGAGCATTGATGTGGAAGGCAAGATCTTCAAAGCAGCCAAAGATGCTGGTATCGCAC
 TGCTCTCCATACCCATCGACCCCTCCCTATGGAAGTACCACACACTTGTCTGCAGTTTGTATGGGGAAGG
 AGGCTGGAAGTTTGAGAAGCTGGATTCTGCTGCCCGCCTGAGCCTGACTGAAGAGAAGCAGCGCCTGGAG
 CAGCAACTGGCGGGCATCCCCAAGATGCAGGGGCGCCTCAGGAGCTCCGCCAGATCCTTGGCGAAGCTG
 CAGCTCCAGTTCAACCCCTGGTCCCAGGAGTCCCCACT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR210364 protein sequence
 Red=Cloning site Green=Tags(s)

MPVLSTPRPSRVTTLKRTAVVLALTAYGVHKIYPLVRQCLTPARGPQVPAGEPTQEASGATATKAGMNRV
 FLQRLALLRLLFPRVLCRETGLLALHSAALVSRFTLSVYVARLDGRLARCIVRKDPRAF SWQLLQWLLI
 ALPATFINSAIRYLEGQLAL SFRSRLVAHAYGL YFSQTYRVS NMDGRLRNPDQSLTEDVVAFAASVAH
 LYSNLTKPLLDVAVTSYLLRAARSRGAGTAWPSAIAGLVVFLTANVLRASF PKFGELVAEEARRK GELR
 YMHSRVVANSEEIAFYGGHEVELALLQHSYQDLASQINLILLERLWYVMLEQFLMKYVWSASGLLMVAVP
 IITATGYAESDSEAMKKALEMKEEELVSETEAFTIARNLLTAAADATERIMSSYKEVTELAGYARVY
 EMFQVFEDVKHCRFKRTGDLEEAQAGPGVMVQSGVHVEGPLKIQGQVVDVEQGIICENIPIITPTGEVVV
 ASLNIRVEEGMHLLITGPNCGKSSLFRLGGLWPTYSGVLKPPPQRMFYIPQRPYMSVGLRDQVIYP
 DSAEDMRRKGCSEQQLEAILGIVHLRHILQREGGWEAVCDWKDVL SGGEKQRIGMARMFYHRPKYALLDE
 CTSAVSIDVEGKIFQAAKDAGIALLSITHRPSLWKYHHTLLQFDGEGGWKFEKLDSAARLSL TEEKQRLE
 QQLAGIPKMQGRQLQLRQILGEAAPVQPLVPGVPT

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_007435

ORF Size: 2211 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

RefSeq: [NM_007435.2](#), [NP_031461.1](#)

RefSeq Size: 3421 bp

RefSeq ORF: 2211 bp

Locus ID: 11666

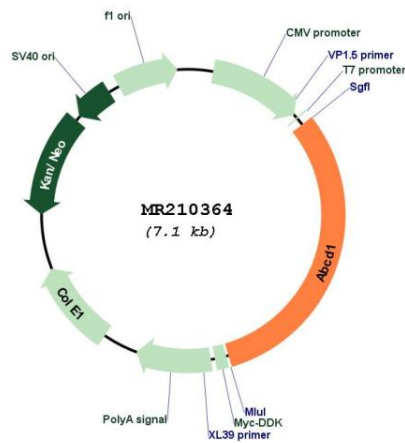
UniProt ID: [P48410](#)

Cytogenetics: X 37.39 cM

MW: 81.9 kDa

Gene Summary:

The membrane-associated 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 the human 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]

Product images:

Circular map for MR210364