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Product datasheet for MR210402

Abcd2 (NM_011994) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Abcd2 (NM_011994) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Abcd2
Synonyms:	A; ABC3; ABC39; AL; ALDL1; ALDR; ALDRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR210402 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGATACACATGCTAAATGCAGCAGCCTATCGGGTGAAATGGACCAGATCCGGTGCTGCTAAAAGGGCTG
CCTGCCTGGTGGCTGCGGCATATGCTCTGAAAACCCTCTATCCCATCATTGGCAAGCGTTTAAAGCAGCC
TGGCCACAGGAAGGCAAAAGCAGAAGCTTACTCGCCTGCAGAGAACAGAGAAATACTGCATTGCACGGAG
ATCATCTGTAAAAAACCTGCGCCGGGACTAAATGCAGCTTTTTTCAAACAGCTACTAGAACTTCGGAAAA
TCCTCTTTCCAAAACTTGTGACCACTGAAACGGGGTGGCTCTGCCTCCACTCGGTGGCTCTAATCTCAAG
AACATTTCTCTCTATTTATGTGGCTGGTCTGGATGGGAAAATCGTGAAAAGCATCGTGGAAAAGAAGCCT
CGGACTTTCATCATCAAATTAATCAAGTGGCTTATGATTGCTATCCCTGCTACCTTTGTCAACAGTGCTA
TCAGGTACCTGGAATGCAAACTGGCATTGGCCTTTAGAACTCGCTTAGTAGACCATGCCTATGAGACCTA
TTTCGCAAATCAGACTTATTATAAGGTGATAAATATGGATGGGAGGCTGGCAAACCCTGACCAGTCTCTT
ACCGAAGACATTATGATGTTCTCGCAATCTGTGGCTCACCTGTATTCCAACCTTACCAAACCTATTTTAG
ATGTCATTCTAACCTCCTATACTCTCATCCGGACAGCTACATCCAGAGGAGCAAGCCCTATAGGGCCCAC
CCTGTTAGCAGGACTTGTCGTGTATGCCACTGCTAAAGTACTGAAAGCTTGCTCGCCCAAATTTGGTTCG
CTGGTGGCTGAAGAAGCCCACAGGAAAGGCTACCTGCGGTATGTCCACTCCCGAATCATAGCCAATGTAG
AAGAAATTGCCTTCTACAGAGGACATAAGGTAGAAATGAAGCAGCTGCAGAAATGTTACAAGGCTTTAGC
TTACCAGATGAACCTGATTTTATCCAAACGTTTATGGTACATCATGATAGAACAATTCTTGATGAAGTAT
GTGTGGAGCAGCTGTGGACTAATTATGGTGGCTATACCCATTATCACTGCAACGGGCTTTGCAGATGGTG
ATCTGGAGGATGGTCCAAAGCAGGCTATGGTTAGCGATCGGACAGAGGCCTTCACCACTGCCCGGAACTT
ACTGGCCTCTGGAGCTGATGCAATTGAAAGGATTATGTCTTCATACAAAGAGATCACTGAACTAGCAGGT
TATACTGCTAGAGTATACAATATGTTCTGGGTCTTCGATGAAGTGAAGAGAGGCATTTATAAGAGAACTG
TCACTCAGGAACCTGAAAACCATAGCAAGCGTGGAGGTAACCTGGAACTACCCCTCAGCGACACCCTGGC
CATCAAAGGAACAGTTATTGATGTGGATCATGGAATCATTTGTGAAAATGTTCCCATAATTACACCAGCG
GGCGAAGTGGTGGCTTCCAGGCTAAACTTCAAAGTGGAAGAAGGGATGCATCTCTTGATAACTGGTCCCA
ACGGTTGTGGGAAAAGCTCTCTCTTCAGAATCTTAAGCGGGCTGTGGCCTGTGTATGAAGGAGTCCTTTA
TAAACCGCCTCCCCAACATATGTTCTATATTCCACAGAGGCCATACATGTCTCTTGGAAGTCTCCGGGAT
CAAGTCATTTACCCTGACTCAGCGGATGACATGCGTGAGAAAGGTTACACTGACCAAGACCTAGAACGCA
TCCTGCACAGCGTGCACCTCTACCACATAGTTCAAAGAGAAGGAGGATGGGATGCAGTCATGGACTGGAA
AGATGTCCTTTCCGGAGGGGAGAAGCAGAGAATGGGCATGGCGCGGATGTTTTACCATAAACCGAAGTAT
GCATTGCTGGATGAATGTACCAGTGCCGTGAGCATCGACGTTGAAGGAAAGATATTTCAGGCTGCTATTG
GGGCTGGGATTTCCCTACTCTCCATAACACACAGGCCTTCTCTGTGGAAATACCACACTCATCTATTACA
ATTCGATGGCGAAGGAGGCTGGCGCTTTGAACAGTTGGACACTGCTATCCGTTTAACGTTGAGTGAGGAA
AAGCAAAAGTTGGAGTCGCAGCTCGCTGGAATTCCCAAAATGCAACAGAGACTCAACGAACTATGCAAAA
TTCTGGGGGAAGACTCGGTGCTGAAAACAATCCAAACTCCAGAAAAGACATCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

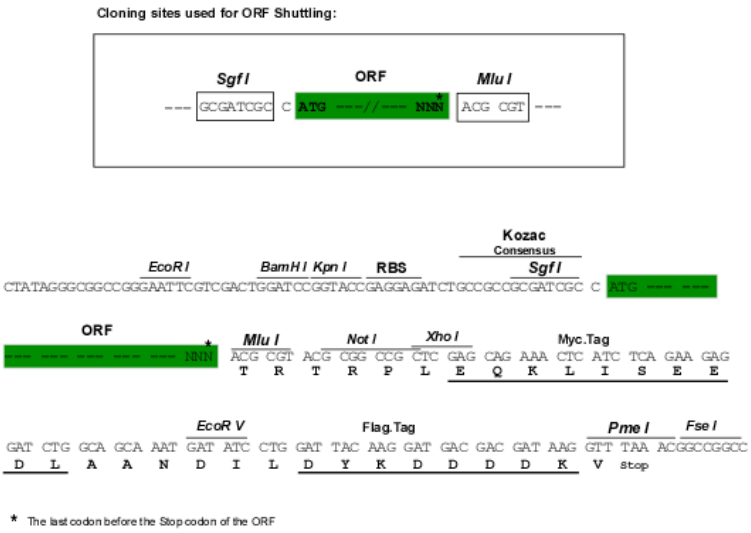
>MR210402 protein sequence
Red=Cloning site Green=Tags(s)

MIHMLNAAAYRVKWTRSGAAKRAACLVAAAYALKTLYPIIGKRLKQPGHRKAKAEAYSPAENREILHCTE
IICKKPAPGLNAAFFKQLLELRKILFPKLVTTETGWLCLHSVALISRTFLSIYVAGLDGKIVKSIVEKKP
RTFIIKLIKWLMIAIPATFVNSAIRYLECKLALAFRTRLVDHAYETYFANQTYYKVINMDGRLANPDQSL
TEDIMMFSQSVAHLYSNLTKPILDVILTSYTLIRTATSRGASPIGPTLLAGLVVYATAKVLKACSPKFGS
LVAEEAHRKGYLRYVHSRIIANVEEIAFYRGHKVEMKQLQKCYKALAYQMNLILSKRLWYIMIEQFLMKY
VWSSCGLIMVAIPIITATGFADGDLEDGPKQAMVSDRTEAFTTARNLLASGADAIERIMSSYKEITELAG
YTARVYNMFWVFDEVKRGIYKRTVTQEPENHSKRGGNLELPLSDTLAIKGTVIDVDHGIICENVPIITPA
GEVVASRLNFKVEEGMHLLITGPNGCGKSSLFRILSGLWPVYEGVLYKPPPQHMFYIPQRPYMSLGSLRD
QVIYPDSADDMREKGYTDQDLERILHSVHLYHIVQREGGWDAVMDWKDVLSGGEKQRMGMARMFYHKPKY
ALLDECTSAVSIDVEGKIFQAAIGAGISLLSITHRPSLWKYHTHLLQFDGEGGWRFEQLDTAIRLTLSEE
KQKLESQLAGIPKMQQRLNELCKILGEDSVLKTIQTPEKTS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_011994

ORF Size: 2226 bp

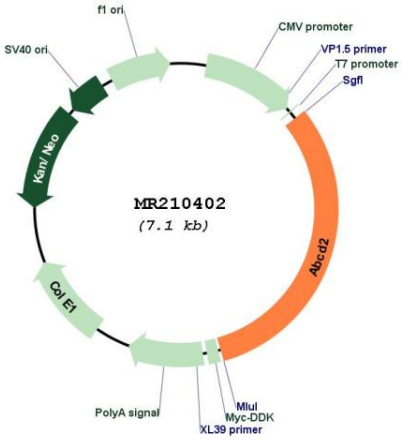
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
RefSeq:	NM_011994.1
RefSeq Size:	5540 bp
RefSeq ORF:	2226 bp
Locus ID:	26874
UniProt ID:	Q61285
Cytogenetics:	15 E3
MW:	83.5 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. 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 the human 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]

Product images:



Circular map for MR210402