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Product datasheet for RC201291

ABCD4 (NM_005050) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABCD4 (NM_005050) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABCD4
Synonyms:	ABC41; EST352188; MAHCJ; P70R; P79R; PMP69; PXMP1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201291 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGTCGCGGGGCCCGCGCCCGGAGCTGGCGCCAGGCCCAGGTTAGATCTGCAATTTCTCCAGCGGT
TCCTGCAGATACTGAAGGTTTTGTTTCCTTCTTGGTCATCACAAAATGCCTTGATGTTCCTGACCCTTTT
GTGCCTGACCCTACTGGAGCAATTTGTGATCTACCAGGTTGGCCTGATCCCCAGTCAGTACTATGGGGTC
CTGGGAAACAAAGACTTGGAAGGGTTTAAGACTCTGACATTCCTGGCTGTCATGCTCATTGTTCTGAACT
CCACGCTGAAGAGCTTTGATCAGTTCACCTGCAACCTGCTGTATGTGAGCTGGAGGAAGGACCTCACTGA
GCACCTTCACCGCCTCTACTTCCGGGGCCGTGCGTACTACACCCTCAACGTGCTGCGGGATGACATCGAT
AACCCGGACCAGCGCATCAGCCAGGACGTGGAGCGATTCTGCCGGCAGCTCAGCAGCATGGCCAGCAAGC
TCATCATCTCCCCGTTCACCCTCGTCTACTACACTTACCAGTGCTTCCAAAGCACAGGCTGGCTCGGGCC
TGTGAGCATCTTCGGGTATTTCATCCTGGGGACCGTGGTGAACAAAACTTTGATGGGCCCCATTGTGATG
AAGCTGGTGCATCAGGAGAAGCTGGAGGGAGATTTTAGGTTCAAGCACATGCAGATTCGGGTGAATGCGG
AGCCTGCTGCTTTCTACAGAGCTGGGCATGTGGAGCACATGAGGACAGACCGCAGGCTGCAGAGACTCCT
TCAGACCCAGAGGGAGCTGATGTCCAAGGAGCTCTGGCTGTACATCGGCATCAACACCTTTGACTATCTG
GGCAGCATCCTGAGTTACGTTGTCATCGCAATCCCCATTTTCAGCGGGGTCTATGGAGACCTGAGTCCCA
CAGAGCTTAGCACCCTGGTCAGCAAGAATGCCTTTGTGTGCATCTACCTCATCAGCTGCTTCACCCAGCT
AATCGACCTGTCCACGACGCTCTCAGATGTGGCTGGCTACACGCACAGAATTGGGCAGCTTCGGGAGACG
CTTCTGGACATGTCCCTGAAGTCACAGGACTGCGAGATCCTGGGCGAGAGCAAGTGGGGCTTGGACACAC
CCCCAGGGTGGCCAGCGGCAGAGCCAGCAGACACAGCATTTCTCCTTGAGCGGGTCTCCATCTCTGCCCC
CTCCTCTGACAAACCCCTAATCAAGGATCTGAGCCTAAAGATCTCCGAGGGACAGAGCCTGCTCATCACA
GGCAACACGGGCACTGGCAAGACCTCCTTGCTCCGGGTTCTGGGTGGCCTCTGGACGAGTACACGGGGCT
CAGTGCAGATGCTGACGGACTTTGGGCCCCATGGGGTGCTATTCCTGCCACAAAAGCCATTCTTCACTGA
CGGGACCCTTCGGGAGCAGGTGATATATCCCCTGAAGGAGGTCTACCCCGACTCAGGTTCTGCCGATGAT
GAGAGGATCTTGAGGTTCTTGGAATTGGCAGGCCTGTCCAACTTGGTGGCAAGGACAGAGGGCCTGGACC
AGCAGGTGGACTGGAACTGGTATGATGTTCTGTCCCCGGGGGAGATGCAACGGCTCTCCTTTGCCCGACT
CTTCTACCTGCAGCCGAAGTACGCAGTGCTTGATGAAGCCACCAGTGCCCTGACAGAGGAAGTGGAGAGC
GAGCTCTATCGCATCGGCCAGCAGCTGGGGATGACGTTCATCAGTGTGGGACATCGGCAGAGCCTTGAGA
AGTTTCATTCCTTGGTTCTGAAACTCTGTGGAGGAGGAAGATGGGAGCTGATGAGAATCAAAGTGGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201291 protein sequence
Red=Cloning site Green=Tags(s)

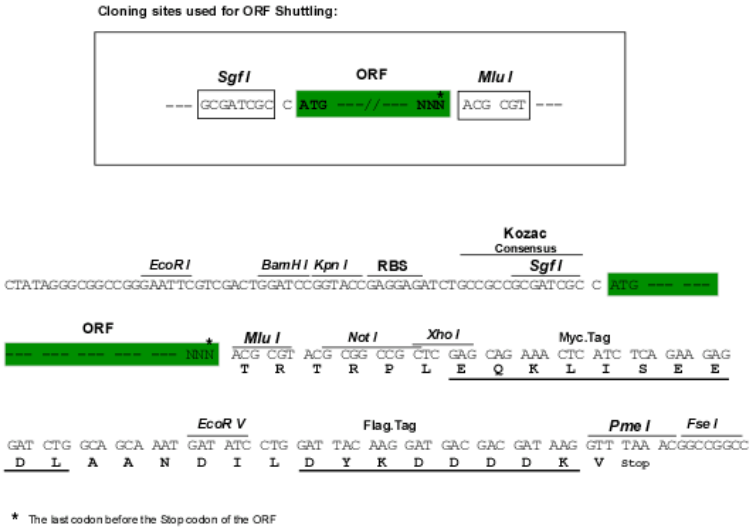
MAVAGPAPGAGARPRLDLQFLQRFLQILKVLFPSWSSQNALMFLTLLCLTLLEQFVIYQVGLIPSQYYGV
LGNKDLEGFKTLTFLAVMLIVLNSTLKSFDQFTCNLLYVSWRKDLTEHLHRLYFRGRAYYTLNVLRDDID
NPDQRISQDVERFCRQLSSMASKLIISPFTLVYYTYQCFQSTGWLGPVSIFGYFILGTVVNKTLMGPIVM
KLVHQEKLEGDFRFKHMQIRVNAEPAAFYRAGHVEHMRTDRRLQRLLQTQRELMSKELWLYIGINTFDYL
GSILSYVVIAIPIFSGVYGDLSPTELSTLVSKNAFVCIYLISCFTQLIDLSTTLSDVAGYTHRIGQLRET
LLDMSLKSQDCEILGESKWGLDTPPGWPAAEPADTAFLLERVSISAPSSDKPLIKDLSLKISEGQSLLIT
GNTGTGKTSLLRVLGGLWTSTRGSVQMLTDFGPHGVLFLPQKPFFTDGTLREQVIYPLKEVYPDSGSADD
ERILRFLELAGLSNLVARTEGLDQQVDWNWYDVLSPGEMQRLSFARLFYLQPKYAVLDEATSALTEEVES
ELYRIGQQLGMTFISVGHRQSLEKFHSLVLKLCGGGRWELMRIKVE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6419_h09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005050

ORF Size: 1818 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_005050.4

RefSeq Size: 3157 bp

RefSeq ORF: 1821 bp

Locus ID: 5826

UniProt ID: O14678

Cytogenetics: 14q24.3

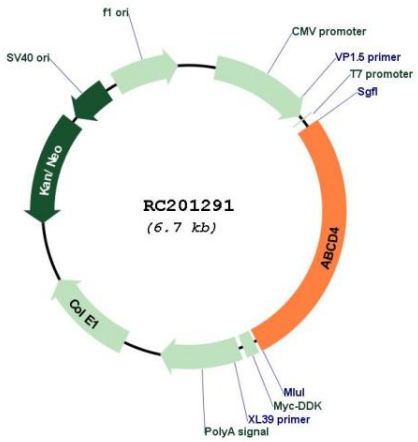
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: ABC transporters

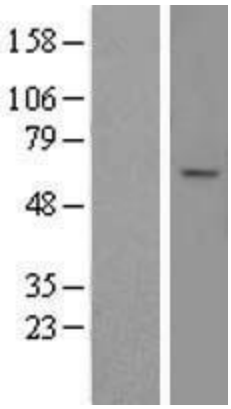
MW: 68.6 kDa

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, it is speculated that it may function as a heterodimer for another peroxisomal ABC transporter and, therefore, may modify the adrenoleukodystrophy phenotype. It may also play a role in the process of peroxisome biogenesis. Alternative splicing results in several protein-coding and non-protein-coding variants. [provided by RefSeq, Jul 2017]

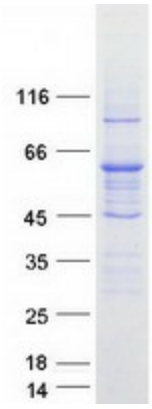
Product images:



Circular map for RC201291



Western blot validation of overexpression lysate (Cat# [LY417546]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201291 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ABCD4 protein (Cat# [TP301291]). The protein was produced from HEK293T cells transfected with ABCD4 cDNA clone (Cat# RC201291) using MegaTran 2.0 (Cat# [TT210002]).