

## Product datasheet for **RC202944**

### **ABCB7 (NM\_004299) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ABCB7 (NM_004299) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABCB7
Synonyms:	ABC7; ASAT; Atm1p; EST140535
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC202944 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGCTGCTCGCGATGCATTCTTGGCGCTGGGCGGCCGCGCGGCTGCTTTTCGAAAAGCGCCGGCACT  
 CCGCGATTCTGATCCGGCCTTTAGTCTCTGTTAGCGGCTCAGGTCGCGAGTGGAGGCCACATCAACTCGG  
 CGCCTTGGGAACCGCTCGAGCCTACCAGCAGATCCAGAGTCATTAAGAAAGTATCACATGGCAGAGATTG  
 GGAAAAGGCAATTCAGGACAGTTCTTAGATGCTGCAAAGGCTCTCCAGGTATGGCCACTGATAGAAAAGA  
 GGACATGTTGGCATGGTCATGCAGGAGGAGACTCCACACAGACCCAAAAGAAGGTTAAAAGATGTTGA  
 TACTCGGAAAATCATAAAAGCAATGCTTTCTTATGTGTGGCCAAAGACAGGCCAGATCTACGAGCTAGA  
 GTTGCCATTTGCTGGGATTTTGGGTGGTCAAAGGCCATGAATATTGGTTCCTTCATGTTTAAAT  
 ATGCTGTAGACAGCCTCAACCAGATGTCGGAAACATGCTGAACCTGAGTGTACACAAATACAGTTGC  
 AACCATGGCAACAGCAGTTCTGATTGGCTATGGTGTATCAAGAGCTGGAGCTGCTTTTTTAAACGAAGTT  
 CGAAATGCAGTATTTGGCAAGGTAGCCAGAAATCAATCCGAAGAATAGCCAAAATGTCTTTCTCCATC  
 TTCACAACCTGGATCTGGGTTTTACCTGAGCAGACAGACGGGAGCTTTATCTAAGGCTATTGACAGAGG  
 AACAAAGGGTATCAGTTTTGTCCTGAGTCTTTGGTATTTAATCTTCTCCCATCATGTTTGAAGTGATG  
 CTTGTCAGTGGTGTGTTGATTACAAAATGCGGTGCCAGTTTGTCTTGGTAACCTTGGAACTTGGTA  
 CATAACAGCATTACAGTTGCAGTACACCGGTGGAGAAGTAGATTTAGAATAGAATGAACAAAGCAGA  
 TAATGATGCAGGTAATGCTGCTATAGACTCACTGCTGAATTATGAAACTGTGAAGTATTTAATAATGAA  
 AGATATGAAGCACAGAGATATGATGGATTTTGAAGACGATGAGACTGCTTCATTGAAAAGTACCTCTA  
 CTCTGGCTATGCTGAACTTTGGTCAAAGTGCTATTTTTCAGTGTGCGTTTAAACAGCTATAATGGTGTCTCGC  
 CAGTCAGGGAATTTGGCAGGTACCCCTTACTGTTGGAGATCTAGTAATGGTGAATGGACTGCTTTTCAG  
 CTTTCATTACCCCTGAACCTTCTGGAACTGTATATAGAGAGACTAGACAAGCACTCATAGATATGAACA  
 CCTTGTACTCTACTCAAGGTAGACACCCAAATTAAGACAAAGTATGGCATCTCCCCTTCAGATCAC  
 ACCACAGACAGCTACCGTGGCCTTTGATAATGTGCATTTTGAATACATTGAGGGCCAGAAAGTCCTTAGT  
 GGAATATCCTTTGAAGTCCCTGCAGGAAAGAAAGTGGCCATTGTAGGAGGTAGTGGGTGAGGAAAAGCA  
 CAATAGTGAGGCTATTATTTGCTTCTATGAGCCTCAAAGGGTAGCATTATCTTGTGCTGCTCAAATAT  
 ACAAGATGTGAGCCTGGAAGCCTTCGGAGGGCAGTGGGAGTGGTACCTCAGGATGCTGCTCCTCCAT  
 AATACTATTTATTACAACCTCTTATATGGAACATCAGTCTTACCTGAGGAAGTGTATGCAGTGGCAA  
 AATTAGCTGGACTTCATGATGCAATTTCTGAATGCCACATGGATATGACACCAAGTAGGGGAACGAGG  
 ACTCAAGCTTTCAGGAGGAGAAAAGCAAAGTAGCAATTGCAAGAGCCATTTTGAAGGACCCCCAGTC  
 ATACTCTATGATGAAGCTACTTCATCGTTAGATTGATTACTGAAGAGACTATTCTTGGTGCCATGAAGG  
 ATGTGGTCAAACACAGAACTTCTATTTTCATTGCACACAGATTGTCAACAGTGGTTGATGCAGATGAAAT  
 CATTGCTTGGATCAGGGTAAGGTAGCCGAACGTGGTACCCACCATGGTTTGTCTGCTAACCTCATAGT  
 ATCTATTCAGAAATGTGGCATACACAGAGCAGCCGTGTGCAGAACCATGATAACCCCAAATGGGAAGCAA  
 AGAAAGAAAATATATCCAAGAGGAGGAAAGAAAGAACTACAAGAAGAAATGTCAATAGTGTGAAAGG  
 CTGTGAAAACCTGTTCTGTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



**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](mailto: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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_004299.6](#)

**RefSeq Size:** 2528 bp

**RefSeq ORF:** 2262 bp

**Locus ID:** 22

**UniProt ID:** [O75027](#)

**Cytogenetics:** Xq13.3

**Domains:** ABC\_membrane, ABC\_tran, AAA

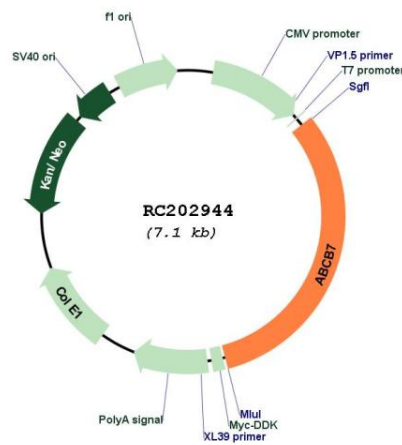
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** ABC transporters

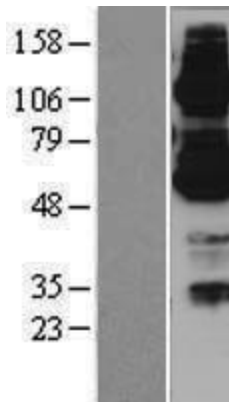
**MW:** 82.8 kDa

**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 MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance as well as antigen presentation. This gene encodes a half-transporter involved in the transport of heme from the mitochondria to the cytosol. With iron/sulfur cluster precursors as its substrates, this protein may play a role in metal homeostasis. Mutations in this gene have been associated with mitochondrial iron accumulation and isodicentric (X)(q13) and sideroblastic anemia. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2012]

**Product images:**


Circular map for RC202944



Western blot validation of overexpression lysate (Cat# [LY418089]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202944 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).