

Product datasheet for **RG202944**

ABCB7 (NM_004299) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABCB7 (NM_004299) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ABCB7
Synonyms:	ABC7; ASAT; Atm1p; EST140535
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG202944 representing NM_004299
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGCTGCTCGCGATGCATTCTTGGCGCTGGGCGGCCGCGCGGCTGCTTTTCGAAAAGCGCCGGCACT
 CCGCGATTCTGATCCGGCCTTTAGTCTCTGTTAGCGGCTCAGGTCGCGAGTGGAGGCCACATCAACTCGG
 CGCCTTGGGAACCGCTCGAGCCTACCAGCAGATCCAGAGTCATTAAGAAAGTATCACATGGCAGAGATTG
 GGAAAAGGCAATTCAGGACAGTTCTTAGATGCTGCAAAGGCTCTCCAGGTATGGCCACTGATAGAAAAGA
 GGACATGTTGGCATGGTCATGCAGGAGGAGACTCCACACAGACCCAAAAGAAGGTTAAAAGATGTTGA
 TACTCGGAAAATCATAAAAGCAATGCTTTCTTATGTGTGGCCAAAGACAGGCCAGATCTACGAGCTAGA
 GTTGCCATTTGCTGGGATTTTGGGTGGTCAAAGGCCATGAATATTGGTTCCTTCATGTTTAAAT
 ATGCTGTAGACAGCCTCAACCAGATGTCGGAAACATGCTGAACCTGAGTGTACACAAATACAGTTGC
 AACCATGGCAACAGCAGTTCTGATTGGCTATGGTGTATCAAGAGCTGGAGCTGCTTTTTTAAACGAAGTT
 CGAAATGCAGTATTTGGCAAGGTAGCCAGAAATCAATCCGAAGAATAGCCAAAATGTCTTTCTCCATC
 TTCACAACCTGGATCTGGGTTTTACCTGAGCAGACAGACGGGAGCTTTATCTAAGGCTATTGACAGAGG
 AACAAAGGGTATCAGTTTTGTCCTGAGTCTTTGGTATTTAATCTTCTCCCATCATGTTTGAAGTGATG
 CTTGTCAGTGGTGTGTTGATTACAAAATGCGGTGCCAGTTTGTCTTGGTAACCTTGGAACTTGGTA
 CATAACAGCATTACAGTTGCAGTCACACGGTGGAGAACTAGATTTAGAATAGAATGAACAAAGCAGA
 TAATGATGCAGGTAATGCTGCTATAGACTCACTGCTGAATTATGAAACTGTGAAGATTTAATAATGAA
 AGATATGAAGCACAGAGATATGATGGATTTTGAAGACGTATGAGACTGCTTCATTGAAAAGTACCTCTA
 CTCTGGCTATGCTGAACTTTGGTCAAAGTGCTATTTTTCAGTGTGCGTTTAAACAGCTATAATGGTGTGCGC
 CAGTCAGGGAATTTGGCAGGTACCCCTTACTGTTGGAGATCTAGTAATGGTGAATGGACTGCTTTTTTCAG
 CTTTCATTACCCCTGAACTTTCTGGAACTGTATATAGAGAGACTAGACAAGCACTCATAGATATGAACA
 CCTTGTGTTACTCTACTCAAGGTAGACACCCAAATTAAGACAAAGTATGGCATCTCCCCTTCAGATCAC
 ACCACAGACAGCTACCGTGGCCTTTGATAATGTGCATTTTGAATACATTGAGGGCCAGAAAGTCCTTAGT
 GGAATATCCTTTGAAGTCCCTGCAGGAAAGAAAGTGGCCATTGTAGGAGGTAGTGGGTGAGGAAAAGCA
 CAATAGTGAGGCTATTATTTGCTTCTATGAGCCTCAAAGGGTAGCATTATCTTGTGCTGCTCAAATAT
 ACAAGATGTGAGCCTGGAAGCCTTCGGAGGGCAGTGGGAGTGGTACCTCAGGATGCTGCTCCTCCAT
 AATACTATTTATTACAACCTCTTATATGGAACATCAGTCTTACCTGAGGAAGTGTATGCAGTGGCAA
 AATTAGCTGGACTTCATGATGCAATTTCTGAATGCCACATGGATATGACACCCAAAGTAGGGAAACGAGG
 ACTCAAGCTTTCAGGAGGAGAAAAGCAAAGAGTAGCAATTGCAAGAGCCATTTTGAAGGACCCCCAGTC
 ATACTCTATGATGAAGCTACTTCATCGTTAGATTGATTACTGAAGAGACTATTCTTGGTGCCATGAAGG
 ATGTGGTCAAACACAGAACTTCTATTTTCATTGCACACAGATTGTCAACAGTGGTTGATGCAGATGAAAT
 CATTGCTTGGATCAGGGTAAGGTAGCCGAACGTGGTACCCACCATGGTTTGGCTTGTCAACCCTCATAGT
 ATCTATTCAGAAATGTGGCATACACAGAGCAGCCGTGTGCAGAACCATGATAACCCCAAATGGGAAGCAA
 AGAAAGAAAATATATCCAAGAGGAGGAAAGAAAGAACTACAAGAAGAAATGTCAATAGTGTGAAAGG
 CTGTGGAAACTGTTCTGTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202944 representing NM_004299
 Red=Cloning site Green=Tags(s)

MALLAMHSWRWAAAAAFEKRRHSAILIRPLVSVSGSGPQWRPHQLGALGTARAYQQIPESLKSITWQRL
 GKGNISGQFLDAAKALQVWPLIEKRTCWHGHAGGGLHTDPKEGLKDVDRKIIKAMLSYVWPKDRPDLRAR
 VAISLGLGGAKAMNIVVPMFKYAVDSL NQMSGNMLNLSADPNTVATMATAVLIGYGVSRAGAAFFNEV
 RNAVFGKVAQNSIRRIAKNVFLHLHNLDLGFHL SRQTGALSKAIDRGRGTSFVLSALVFNLLPIMFEVM
 LVSGVLYYKCGAQFALVTLGTLGTYTAFTVAVTRWRTRFRIEMNKADNDAGNAIDSLLNYETVKYFNNE
 RYEAQRYDGF LKTYETASLKSTSTLAMLNFGQSAIFSVGLTAIMVLASQGI VAGTLTVGDLVMVNGLLFQ
 LSLPLNFLGTVYRETRQALIDMNTLFTLLKVD TQIKDKVMASPLQITPQTATVAFDNVHF EYIEGQKVL S
 GISFEVPAGKKVAIVGGSGSGKSTIVRLLFRFYEPQKGS IYLAGQNIQDVSLESLRRAVGVV PQDAVLFH
 NTIYYNLLYGNISASPEEYVAVAKLAGLHDAILRMPHG YDTQVGERGLKLSGGEKQ RVAIARAILKDP PV
 ILYDEATSSLD SITEETILGAMKDVVKHRTSIFIAHRLSTVVD ADEIIVLDQ GKVAERGTHHGLLANPHS
 IYSEMWH TQSSRVQNHDPKWEAKKENISKEEERKKLQEEIVNSVKGCGNCSC

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_004299

ORF Size: 2259 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_004299.6](#)

RefSeq Size: 2404 bp

RefSeq ORF: 2262 bp

Locus ID: 22

UniProt ID: [O75027](#)

Cytogenetics: Xq13.3

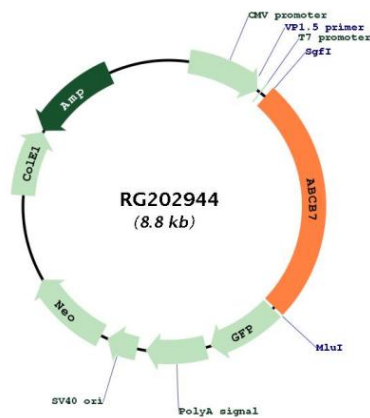
Domains: ABC_membrane, ABC_tran, AAA

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: ABC transporters

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 RG202944