

Product datasheet for **RC224948**

ABCB8 (NM_007188) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABCB8 (NM_007188) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABCB8
Synonyms:	EST328128; M-ABC1; MABC1; MITOSUR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC224948 representing NM_007188
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGGTGCATTTATTTTCGGGTCGGGATTCGGGGTGGCCATTCCAGGCAGGCTGCTACCGCCCTCC
 GCTTCCAGACATTCTCAGCTGTCAGGACTCTGATGGCTACCGCAGCTCCTCCCTCCTCCGGCCGTGGC
 CCACCTGCGGTCCAGCTCTGGGCCACCTCCCTCGAGCCCCCTAGCTCCAGATGGAGCCCTCTGCC
 TGGTGCTGGGTTGGGGAGCCCTGCTAGGCCCATGGTACTGAGTAAGCATCCCCACCTCTGCCTTGTGG
 CCCTGTGTGAGGCAGAAGAGGCCCTCCTGCCAGCTCCACACCCCATGTCGTGGGGTCTCGCTTAACTG
 GAAGCTCTTCTGGCAGTTTCTGCACCCCACTGCTGGTCTGGGGTAGCCGTCGTGCTGGCCTTGGGT
 GCGGCACTCGTGAATGTACAGATCCCCCTGCTCCTGGCCAGCTGGTAAAGGTCGTGGCCAAGTACACAA
 GGGACCACGTAGGAGTTTCATGACTGAGTCCCAGAATCTCAGCACCCACCTGCTATCCTCTATGGTGT
 CCAGGGACTGCTGACCTTCGGGTACCTGGTGTGCTGTCCACGTTGGCGAGCGCATGGCTGTGGACATG
 CGGAGGGCCCTTTCAGCTCCCTGCTCCGACAAAACATCACTTCTTTGACGCCAATAAGACAGGGCAGC
 TGGTGAGCCGCTTGACAACCTGACGTGCAGGAATTTAAGTCATCCTTCAAGCTTGTATCTCCAGGGGT
 GCGAAGCTGCTCCAGGTGGCAGGCTGCCTGGTGTCCCTGTCCATGCTGTGACACGCCTCACGCTGCTG
 CTGATGGTGGCCACACCAGCCCTGATGGGAGTGGGCACCTGATGGGCTCAGGCCCCGAAAATTGTCTC
 GCCAGTGTGAGGAACATATCGCCAGGGCAATGGGCGTAGCAGACGAGGCCCTGGGCAATGTGCGGACTGT
 GCGAGCCTTGGCCATGGAGCAACGGGAAGAGGAGCGCTATGGGGCAGAGCTGGAAGCCTGCCGCTGCCG
 GCAGAGGAGCTGGGCCCGGCATCGCCTTGTTCGAAGGGCTTCCAACATCGCCTTCAACTGCATGGTCT
 TGGGTACCCTATTTATTTGGGGCTCCCTTGTGGCCGACAGCAGCTGACAGGGGGAGACCTATGTCCTT
 CCTGGTGGCCTCCAGACAGTGCAAAGTCCATGGCCAACCTCTCTGTCTGTTTGGGCAGGTGGTCCGG
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 GCTGCGTCCCAAGAGCAGCTGCGTGGTCCGTTACATTTAGAACGTCTGCTTACGCTACCCCTGCCG
 CCCCAGCTTCGAGGTGCTGAAAGACTTACCCTGACGCTGCCCCCTGGCAAGATCGTGGCCCTCGTGGG
 CAGTCTGGCGGAGGAAAGACCACCGTGGCTTCCCTGCTGGAGCGCTTCTACGACCCACGGCAGGCGTGG
 TGATGCTGGATGGGCGGGACCTGCGCACCTTGACCCCTCCTGGCTCCGGGGCAGGTTGTCGGTTTCAT
 CAGCCAGGAGCCCGTCTGTTTGGGACGACCATCATGAAAACATCCGCTTTGGGAAGCTGGAAGCTTCC
 GATGAAGAGGTGTACACAGCCGCCCGGGAAGCGAATGCTCAGAGTTCATCACCAGTTTCCCCGAGGGCT
 ACAACACGGTCTGCGGTGAACGGGCACTACCCTGCTGGGGCCAGAAGCAGCGCTGGCCATCGCCCG
 AGCCCTTATCAAGCAGCCACGGTGTGATACTGGATGAAGCTACCAGCGCGCTGGATGCAGAGTCCGAG
 CGGGTTGTACAGGAGGCCCTGGACCGGGCCAGTGCAGGCCGCACGGTGTGGTAATTGCCACCGGCTCA
 GCACTGCTCCGTGGGGCCACTGCATTGTGTCATGGCCGATGGCCGTGTCTGGGAGGCTGGGACACATGA
 AGAGCTCCTGAAGAAAGGCGGGCTATACGCCGAGCTCATCCGGAGGCAGGCCCTGGATGCCCCGAGGACA
 GCGGCCACCGCCAAAAGCCAGAAGGCCCCAGGAGCCACCAGCACAAGTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224948 representing NM_007188
 Red=Cloning site Green=Tags(s)

MLVHLFRVGI RGGPFPGRLLPPLRFQTFSAVRYSDGYRSSSLRAVAHLRSQLWAHLPRAPLAPRWSPSA
 WCWVGGALLGPMVL SKPHLCLVALCEAEEAPPASSTPHVVGSRFNWKLFWQFLHPHLLVLGVAVLALG
 AALVNVQIPLLLGQLVKVAKYTRDHVGSFMTESQNLSTHLLILYGVQGLLTFGYLVLLSHVGERMAVDM
 RRALFSSLLRQNI TFFDANKTGQLVSRLLTDDVQEFKSSFKLVISQGLRSCSQVAGCLVSLSMLSTRLL
 LMVATPALMGVGTLMGSLRKL SRQCQEH IARAMGVADEALGNVRTV RALAMEQREEERYGAELEACRCR
 AEELGRGIALFQGLSNI AFNCMVLGTLF IGSSLVAGQQLTGGDMSFLVASQTVQRSMANLSVLFQGVVR
 GLSAGARVFEYMALNPCIPLSGGCCVPKEQLRGSVTFQNVCFSYPCRPGFEVLKDFTLTLP PGKIVALVG
 QSGGGKTTVASLLERFYDPTAGVVMLDGRDLRTLDP SWLRGQVVGFI SQEPVLF GTTIMENIRFGKLEAS
 DEEVYTAAREANAHEFITSFPEGYNTVVGERTTL SGGQKQRLAIARALIKOPTVILDEATSALDAESE
 RVVQEALDRASAGRTVLVIAHRLSTVRGAHCIVMADGRVWEAGTHEELLKKGGLY AELIRRQALDAPRT
 AAPPPKKPEGPRSHQHS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_007188

ORF Size: 2154 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.

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

RefSeq: [NM_007188.2](#), [NP_009119.1](#)

RefSeq Size: 2439 bp

RefSeq ORF: 2157 bp

Locus ID: 11194

UniProt ID: [Q9NUT2](#)

Cytogenetics: 7q36.1

Domains: ABC_membrane, ABC_tran, AAA

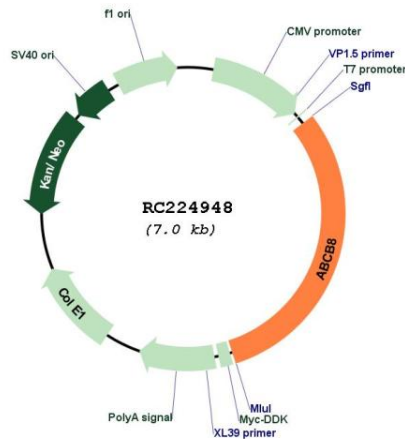
Protein Families: Druggable Genome, Transmembrane

Protein Pathways: ABC transporters

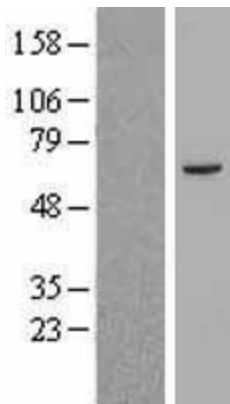
MW: 77.9 kDa

Gene Summary:

This nuclear gene encodes a multi-pass membrane protein that is targeted to the mitochondrial inner membrane. The encoded protein is an ATP-dependent transporter that may mediate the passage of organic and inorganic molecules out of the mitochondria. Loss of function of the related gene in mouse results in a disruption of iron homeostasis between the mitochondria and cytosol. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

Product images:


Circular map for RC224948



Western blot validation of overexpression lysate (Cat# [LY416139]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224948 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).