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Product datasheet for MG227524

Abcb1a (NM_011076) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Abcb1a (NM_011076) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Abcb1a
Synonyms:	Abcb4; Evi32; mdr-3; Mdr1a; Mdr3; P-gp; Pgp; Pgy-3; Pgy3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG227524 representing NM_011076, codon optimized.
Due to the complexity of NM_011076, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTTGGAGGAGGACCTCAAGGGCCGAGCGGACAAAAATTTTAGTAAGATGGGCAAGAAATCCAAGA
AAGAGAAGAAGGAAAAAAAGCCAGCCGTGTCTGTGCTCACAATGTTCCGATACGCAGGGTGGCTTGATCG
GCTCTACATGCTCGTCGGAACGTTGGCTGCCATCATCCACGGAGTAGCGCTGCCTTTGATGATGTTGATT
TTCGGTGACATGACCGACTCATTCGCATCCGTTGGGAACGTGTCTAAGAACAGCACAAACATGAGTGAGG
CTGACAAAAGGGCAATGTTCGCAAAGCTTGAAGAGGAGATGACGACCTACGCATACTACTACACAGGTAT
CGGCGCAGGGGTCCTCATCGTGGCCTACATCCAGGTGAGTTTCTGGTGTCTGGCCGCTGGCAGACAAATT
CACAAGATCAGACAAAAATTCTTTCACGCTATTATGAATCAGGAGATTGGATGGTTTGATGTCCACGATG
TCGGAGAGCTGAACACCCGGCTGACCGACGATGTTAGCAAGATTAATGAAGGTATCGGAGACAAGATCGG
CATGTTTTTCCAGGCTATGGCGACCTTCTTCGGCGGTTTTATTATAGGATTCACCCGGGGTTGGAAACTC
ACTCTGGTGATACTTGCTATCAGTCCAGTGCTCGGACTGTCTGCTGGCATATGGGCCAAAATTCTCAGCT
CATTCACTGACAAAGAACTGCACGCATATGCCAAAGCAGGTGCAGTGGCAGAGGAAGTACTCGCTGCCAT
TCGCACCGTCATAGCCTTTGGGGGTCAGAAGAAGGAGCTGGAAAGGTACAACAATAACCTGGAAGAGGCT
AAGAGGCTCGGAATAAAAAAGGCCATTACCGCCAACATCAGCATGGGAGCGGCATTCCTTCTCATCTACG
CCTCTTACGCCCTGGCCTTCTGGTACGGAACTAGCCTGGTCATTTCCAAAGAATACAGCATCGGGCAGGT
GCTTACCGTGTTCTTCTCCGTCCTCATCGGCGCTTTCTCCGTCGGTCAGGCCAGCCCCAATATCGAGGCA
TTCGCTAATGCCAGAGGAGCCGCATATGAAGTATTTAAGATCATTGACAACAAGCCATCCATCGACTCTT

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TTTCTAAATCTGGACACAAGCCAGATAACATCCAAGGGAACCTGGAATTTAAAAATATTCACTTCAGTTA
TCCCTCCCGGAAGGAGGTCCAGATCCTTAAAGGACTCAATCTTAAAGTCAAATCCGGCCAGACTGTAGCA
CTCGTCGGTAATTCTGGGTGTGGGAAGAGTACCACAGTGCAGTTGATGCAGCGCCTCTATGACCCCTTGG
ACGGGATGGTCAGCATAGACGGGCAAGATATTAGGACAATCAACGTTCGATATCTGCGAGAAATTATCGG
TGTCGTGAGCCAAGAACCAGTCCTCTTCGCCACTACTATTGCAGAGAACATCAGATATGGCCGAGAGGAT
GTCACAATGGACGAGATTGAGAAGGCTGTCAAAGAGGCTAATGCTTACGATTTCATCATGAAGCTGCCTC
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TCCGAGGCCGTGGTGCAGGCTGCCCTTGATAAGGCTCGGGAGGGCCGAACCACTATTGTCATTGCACACC
GCCTCTCCACAGTGAGAAACGCCGACGTCATCGCAGGGTTCGATGGCGGCGTCATTGTGGAACAGGGCAA
CCACGATGAACTCATGCGCGAGAAGGGAATATATTTTAAACTGGTGATGACCCAGACCGCGGGCAATGAG
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CCGGATCTTCTTTGATTAGGAGGCGCTCCACGCGGAAGTCCATTTGTGGACCACATGATCAAGACCGCAA
GCTCTCCACCAAGGAGGCACTGGACGAGGACGTTCCTCCTGCCTCATTCTGGCGGATTCTGAAATTGAAC
AGCACAGAATGGCCATACTTTGTTGTGGGAATCTTTTGCGCTATTATTAACGGGGGGCTCCAACCAGCAT
TCTCCGTCATTTTCTCCAAGGTGGTGGGCGTCTTCACTAATGGTGGACCACCAGAAACTCAAAGACAGAA
TAGTAACTTGTTTTCACTTCTCTTCCTTATACTCGGCATTATTAGCTTTATTACGTTTTTCCTGCAGGGG
TTTACATTTGGCAAGGCTGGAGAGATTCTGACAAAGCGCCTGAGATACATGGTCTTTAAGTCAATGCTTA
GGCAGGACGTCAGCTGGTTCGACGATCCCAAAAATACTACCGGAGCTCTTACCACTCGCCTTGCCAATGA
CGCCGCTCAGGTGAAGGGAGCTACAGGCAGTCGACTTGCTGTAATCTTCCAGAACATCGCTAACTTGGGG
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TTGCAATCGCTGGAGTCGTTGAGATGAAAATGCTGTCAGGGCAGGCCCTGAAAGACAAAAAGGAATTGGA
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GCAATGGCGGTCGGGCAGGTAAGCTCCTTCGCCCCTGACTATGCTAAGGCAACGGTGAGCGCTAGCCATA
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CTGTTGTGCAATTGCTGGAGCGATTTTATGATCCAATGGCTGGCTCAGTGTTTCTGGACGGCAAGGAGAT
CAAGCAGCTCAACGTGCAGTGGCTGCGCGCCCAGCTTGGGATAGTCAGTCAGGAACCAATCCTGTTTGAC
TGCTCAATAGCTGAGAACATTGCCTACGGGGACAATAGCCGGGTCGTTTCATACGAGGAAATTGTTAGGG
CTGCGAAAGAGGCTAACATTCATCAATTTATCGACTCCCTGCCTGACAAGTATAATACAAGGGTTGGAGA
TAAAGGTACACAGCTGTCAGGTGGTCAGAAGCAGCGGATCGCTATTGCTCGCGCTCTGGTTCGACAGCCA
CACATCTTGCTTTTGGATGAAGCCACCTCAGCATTGGATACCGAGTCCGAGAAAGTCGTGCAGGAGGCTC
TGGATAAGGCTAGAGAAGGAAGGACATGTATCGTAATCGCACATCGGCTTTCCACTATCCAGAACGCAGA
CCTGATAGTGGTCATCCAGAACGGAAAAGTCAAGGAACATGGGACCCACCAGCAGCTTCTTGCTCAGAAG
GGAATTTACTTCTCCATGGTGTCCGTCCAGGCAGGCGCTAAGCGGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

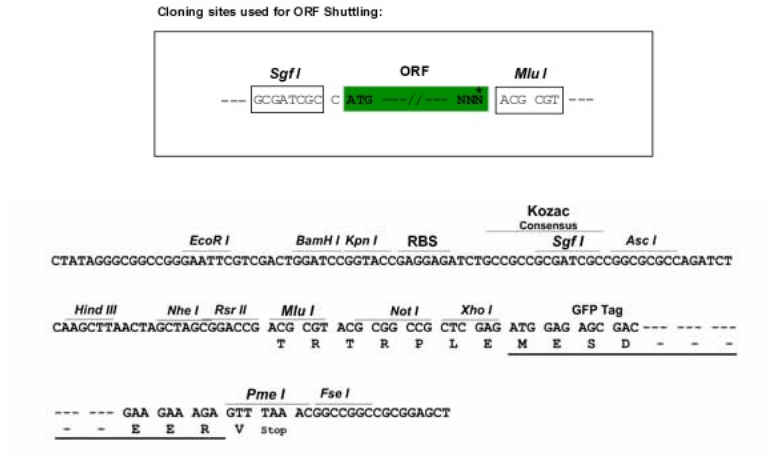
>MG227524 representing NM_011076
Red=Cloning site Green=Tags(s)

MELEEDLKGRADKNFSKMGKKSKKEKKEKKPAVSVLTMFRYAGWLDRLYMLVGTLAAIIHGVALPLMMLI
FGDMTDSFASVGNVSKNSTNMSEADKRAMFAKLEEEMTTYAYYYTGIGAGVLIVAYIQVSFWCLAAGRQI
HKIRQKFFHAIMNQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQAMATFFGGFIIGFTRGWKL
TLVILAISPVLGLSAGIWAKILSSFTDKELHAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNNNLEEA
KRLGIKKAITANISMGAAFLLIYASYALAFWYGTSLVISKEYSIGQVLTVFFSVLIGAFSVGQASPNIEA
FANARGAAYEVFKIIDNKPSIDSFSKSGHKPDNIQGNLEFKNIHFSYPSRKEVQILKGLNLKVKSGQTVA
LVGNSGCGKSTTVQLMQRLYDPLDGMVSIDGQDIRTINVRYLREIIGVVSQEPVLFATTIAENIRYGRED
VTMDEIEKAVKEANAYDFIMKLPHQFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTE
SEAVVQAALDKAREGRTTIVIAHRLSTVRNADVIAGFDGGVIVEQGNHDELMREKGIYFKLVMTQTAGNE
IELGNEACKSKDEIDNLDMSSKDSGSSLIRRRSTRKSICGPHDQDRKLSTKEALDEDVPPASFWRILKLN
STEWPYFVVGIFCAIINGGLQPAFSVIFSKVVGVFTNGGPPETQRQNSNLFSLLFLILGIISFITFFLQG
FTFGKAGEILTKRLRYMVFKSMLRQDVSWFDDPKNTTGALTTRLANDAAQVKGATGSRLAVIFQNIANLG
TGIIISLIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGSGKIATEAIENFRTVVSLTREQ
KFETMYAQSLQIPYRNAMKKAHVFGITFSFTQAMMYFSYAACFRFGAYLVTQQLMTFENVLLVFSAIVFG
AMAVGQVSSFAPDYAKATVSASHIIRIIEKTPEIDSYSTQGLKPNMLEGNVQFSGVVFNYPTRPSIPVLQ
GLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPMAGSVFLDGKEIKQLNVQWLRAQLGIVSQEPILFD
CSIAENIAYGDNSRVVSYEEIVRAAKEANIHQFIDSLPDKYNTRVGDKGTQLSGGQKQRIAIARALVRQP
HILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVIQNGKVKEHGTHQQLLAQK
GIYFSMVSVQAGAKRS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_011076

ORF Size: 3828 bp

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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_011076.2, NP_035206.2

RefSeq Size: 5177 bp

RefSeq ORF: 3831 bp

Locus ID: 18671

UniProt ID: P21447

Cytogenetics: 5 3.43 cM

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 p-glycoprotein which actively transports a variety of hydrophobic amphipathic drugs and plays a major role in the blood-brain barrier permeability of certain drugs. [provided by RefSeq, Jul 2008]

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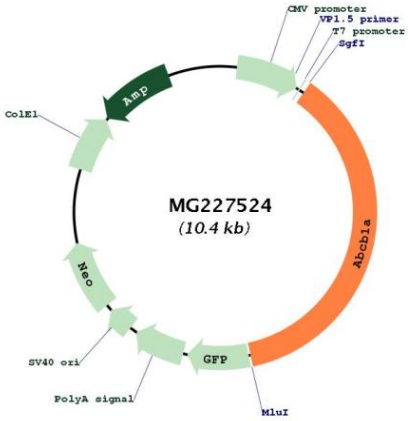
Product images:



Circular map for MG227524

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