

Product datasheet for MC224125

Abcb4 (NM_008830) Mouse Untagged Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Abcb4 (NM_008830) Mouse Untagged Clone |
| Tag: | Tag Free |
| Symbol: | Abcb4 |
| Synonyms: | mdr-2; Mdr2; Pgy-2; Pgy2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Fully Sequenced ORF: | >MC224125 representing NM_008830 Red=Cloning site Blue=ORF Orange=Stop codon |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCTTGAGGCAGCGAGAAACGGAACAGCACGGCGCCTGGACGGCGACTTTGAACTAGGCAGCATCA
GCAACCAAGGCAGAGAAAAGAAGAAGAAAGTGAATTTAATTGGCCTGTTGACACTGTTCCGATACTCTGA
CTGGCAGGATAAATTGTTTATGTTCTCTGGGCACCCTCATGGCCATAGCTCATGGATCAGGCTTCCCCCTC
ATGATGATAGTCTTTGGAGAAATGACAGATAAGTTTGTAGATAAATACTGGAACTTTTCTTCCAGTGA
ATTTTTTATTGCAATGCTAAATCCAGGAAGAATTTTGAAGAAGAAATGACTAGATATGCATACTACTA
TTCCGGACTAGGTGGTGGAGTCTTGTGGCTGCCTATATCCAAGTCTCATTCTGGACTTTGGCAGCTGGC
CGACAAATAAAGAAAATCAGGCAAAAATTTTTTCATGCCATCCTCCGACAAGAAATGGGCTGGTTTGACA
TCAAGGGCACCCTGAACTCAACACACGCTAACAGATGACGCTCCTCAAAATCAGTGAAGGAATGGTGA
CAAGGTTGGAATGTTCTTTCAAGCAATAGCCACGTTTTTTGCAGGATTCATAGTGGGTTTCATCAGAGGA
TGGAAGCTCACCCCTCGTATCATGGCCATCAGCCCATCTGGGGCTCTCTACAGCTGTTTGGGCAAGA
TACTCTCAACATTTAGTGACAAAGAGCTAGCTGCATATGCAAAAGCAGGTGCCGTGGCTGAAGAGGCTCT
GGGAGCCATCAGGACCGTATAGCTTTTCGGGGCCAGAACAAGAGCTAGAAAGGTATCAGAAACATTTA
GAAAATGCCAAAAGATTGGAATTA AAAAGGCTATCTCAGCCAACATCTCCATGGGTATTGCTTTTCTGT
TAATATATGCATCCTATGCACTGGCCTTCTGGTATGGATCCACTCTGGTTATATCAAAGAATATACAAT
TGGAAATGCAATGACAGTCTTCTTCTCAATCCTCATCGGGGCTTTCAGTGTGGGGCAGGCTGCCCCCTGT
ATTGATGCTTTCGCTAATGCAAGAGGAGCAGCCTATGTGATCTTTGACATTATTGATAAATCCTAAAA
TTGACAGTTTTTCAGAGAGAGGACACAAACCAGACAACATCAAAGGAAATTTGGAGTTCAGTGATGTTCA
TTTTTCTATCCATCTCGGGCTAATATCAAGATCTTGAAGGGCTCAACCTGAAGGTGAAGAGTGGACAG
ACAGTGGCTCTGGTTGGCAACAGCGGCTGTGAAAAAGCACAACGTCCAGCTGCTGCAGAGGCTCTACG
ACCCACAGAGGGTAAGATTAGCATCGATGGGCAGGATATCAGGAACCTTAAACGTGAGGTGCTAAGGGA
AATCATTGGTGTGTAAGTCAAGAGCCCGTCTGTTCTCTACTACGATCGCTGAAAATATCCGCTATGCC



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CGTGGGAATGTAACGATGGATGAGATTGAGAAAGCCGTCAAAGAGGCCAATGCCTATGACTTCATCATGA
 AACTGCCCCAGAAATTTGACACCCTGGTTGGTGATAGAGGGGCGCAGCTGAGTGGGGGACAGAAACAGAG
 AATCGCCATTGCCGGGCCCTGGTCCGCAACCCCAAGATCCTCCTGCTGGACGAGGCCACCTCAGCCCTG
 GACACTGAAAGTGAAGCTGAGGTGCAGGCCGACTGGATAAGGCCAGAGAAGGCCGAACCACCATTGTGA
 TAGCTCACCGATTGTCTACCATCCGGAACGCAGATGTCATCGTGGGTTTGAGGATGGAGTCATTGTGGA
 ACAAGGAAGTACAGTGAAGTGAAGAAGGAAGGGATCTACTTCAGACTCGTTAACATGCAGACAGCA
 GGAAGCCAGATCCTGTCAGAAGAATTTGAAGTTGAGCTAAGTGACGAAAAGGCTGCTGGAGATGTGGCCC
 CAAATGGCTGGAAAGCACGCATATTTAGGAATTCTACAAAGAAAAGTCTTAAAAGTCCACATCAGAATAG
 GCTGGATGAAGAAACCAATGAACTTGATGCAAACGTGCCACCAGTGTCTTTTCTGAAGGTCTTAAAAGT
 AATAAAACAGAGTGGCCCTACTTTGTGGTGGGAACAGTCTGTGCCATTGCCAATGGAGCCCTCCAGCCGG
 CTTTCTCCATCATCCTGTCTGAGATGATAGCTATCTTTGGCCCTGGGGATGACGCAGTGAAGCAGCAAAA
 GTGTAACATGTTCTCCCTGGTCTTCTGGGCTAGGAGTCTCTCCTTCTTACTTTCTTCTCAGGGC
 TTCACGTTTGGAAAGCTGGAGAGATCCTACCACAAGGCTCCGGTCCATGGCCTTAAAGCGATGCTAA
 GGCAGGACATGAGCTGGTTTGTGATCATAAAAACAGTACTGGAGCACTTCTACAAGACTCGCCACAGA
 TGCTGCGCAAGTCCAAGGAGCCACGGGAACCAGGTTGGCTTAAATTGCACAGAACACAGCCAACCTTGG
 ACCGGTATTATTATATCATTTATTACGGTTGGCAACTGACACTTCTGCTGTTATCGGTTGTCCATTCA
 TTGCTGTAGCAGGAATTGTTGAAATGAAAATGTTGGCTGGCAATGCCAAGAGAGATAAAAAGGAAATGGA
 AGCTGCTGGAAAGATTGCAACAGAGGCAATAGAAAATATTCGAACTGTTGTATCCTTGACCCAAGAAAGA
 AAATTTGAGTCAATGTATGTTGAAAAATTCATGGACCTTACAGGAATTCGGTGGGGAAGGCACACATCT
 ACGGCATCACTTTTAGCATCTCCAAGCATTCTATGATTTTTCTTATGCTGGCTGTTTTCGATTTGGTTC
 TTACCTAATTGTGAATGGACATATGCGCTTCAAAGATGTCATTCTGGTCTTTTCTGCAATTGTGCTTGGC
 GCGGTGGCTTAGGACACGCCAGCTCATTGCTCCGACTATGCAAAAGCCAAGTGTCTGCAGCATACT
 GTTTCAGCCTGTTTGAAGACAACCTCTGATTGACAGCTACAGTGGAGAAGGGCTGTGGCCTGATAAGTT
 TGAAGGAAGCGTGACATTTAATGAAGTCGTGTTCAACTATCCCACCCGGGCCAACGTGCCAGTGTTCAG
 GGGCTGAGCCTTGAGGTGAAGAAGGCCAGACGCTGGCCCTGGTGGGAGCAGTGGCTGCGGGAAGAGCA
 CAGTGGTCCAGCTGCTCGAGCGTTCTATGACCCCATGGCTGGATCAGTGTCTTAGATGGTCAAGAAGC
 AAAGAACTCAATGTCCAGTGGCTCCGAGCTCAACTGGGCATTGTGTCCCAGGAACCCATTCTCTTTGAC
 TGCAGCATCGCAGAGAACATCGCCTATGGAGACAACAGCCGGTCTGTCCTCATGATGAGATTGTGAGGG
 CAGCCAAGGAGGCCAACATCCACCCTTATCGAGACGCTGCCCCAAAAATAACACAAGAGTAGGAGA
 CAAGGGGACGCAGCTCTCTGGGGCCAGAAGCAGAGGATTGCCATCGCCGAGCCCTCATCAGACAGCCT
 CGGGTCTACTGTGGATGAAGCCAGTCACTGATGACTGAGAGTAAAAGGTTGTCCAGGAAGCAC
 TGGACAAAAGCCAGGGAAGGCCGACCTGCATTGTGATCGCTCACCGCCTGTCCACCATCCAGAACCGGGA
 CTTGATCGTGGTATTGAGAACGGCAAGGTCAGGAGCACGGCACCCACCAGCAGCTGCTGGCGCAGAAG
 GGCATCTATTTCTCAATGGTCAACATCCAGGCCGGCACACAGAAGTTATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_008830
Insert Size: 3831 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](#)

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_008830.2](#), [NP_032856.2](#)

RefSeq Size: 4083 bp

RefSeq ORF: 3831 bp

Locus ID: 18670

UniProt ID: [P21440](#)

Cytogenetics: 5 3.43 cM

Gene Summary:

Energy-dependent phospholipid efflux translocator that acts as a positive regulator of biliary lipid secretion. Functions as a floppase that translocates specifically phosphatidylcholine (PC) from the inner to the outer leaflet of the canalicular membrane bilayer into the canaliculi between hepatocytes. Translocation of PC makes the biliary phospholipids available for extraction into the canaliculi lumen by bile salt mixed micelles and therefore protects the biliary tree from the detergent activity of bile salts (PubMed:8106172, PubMed:7912658, PubMed:7592705, PubMed:7814632, PubMed:8725158, PubMed:9366571). Plays a role in the recruitment of phosphatidylcholine (PC), phosphatidylethanolamine (PE) and sphingomyelin (SM) molecules to nonraft membranes and to further enrichment of SM and cholesterol in raft membranes in hepatocytes (By similarity). Required for proper phospholipid bile formation (PubMed:8106172). Indirectly involved in cholesterol efflux activity from hepatocytes into the canalicular lumen in the presence of bile salts in an ATP-dependent manner (PubMed:7814632, PubMed:8725158). May promote biliary phospholipid secretion as canaliculi-containing vesicles from the canalicular plasma membrane (PubMed:9366571). In cooperation with ATP8B1, functions to protect hepatocytes from the deleterious detergent activity of bile salts (PubMed:21820390). Does not confer multidrug resistance (PubMed:1990275).[UniProtKB/Swiss-Prot Function]