

Product datasheet for **SC119584**

P Glycoprotein (ABCB1) (NM_000927) Human Untagged Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | P Glycoprotein (ABCB1) (NM_000927) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | P Glycoprotein |
| Synonyms: | ABC20; CD243; CLCS; GP170; MDR1; p-170; P-GP; PGY1 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |

Fully Sequenced ORF: >OriGene sequence for NM_000927 edited
 CAAGCTCAAAGAAGCAGAGGCCGCTGTTTCGTTTCCTTTAGGTCTTTCCACTAAAAGTCGGA
 GTATCTTCTTCCAAAATTTACAGTCTTTGGTGGCCGTTCCAAGGAGCGGAGGTGGGATG
 GATCTTGAAGGGGACCGCAATGGAGGAGCAAAGAAGAAGAACTTTTTAACTGAACAAT
 AAAAGTAAAAAGATAAGAAGGAAAAAGAACTGTCAGTGTATTTCAATGTTTCGC
 TATTCAAATTGGCTTGACAAGTTGTATATGGTGGTGGAACTTTGGCTGCCATCATCCAT
 GGGGCTGGACTTCTCTCATGATGCTGGTGTGGAGAAATGACAGATATCTTTGCAAAAT
 GCAGGAAATTTAGAAGATCTGATGTCAAACATCACTAATAGAAGTATCAATGATACA
 GGGTCTTTCATGAATCTGGAGGAAGACATGACCAGGTATGCTATTATTACAGTGAAT
 GGTGCTGGGTGCTGGTGTGCTGCTTACATTGAGTTTCATTTGGTGCCTGGCAGCTGGA
 AGACAAATACACAAAATTAGAAAACAGTTTTTTCATGCTATAATGCGACAGGAGATAGGC
 TGGTTTGATGTGCACGATGTTGGGAGCTTAACACCCGACTTACAGATGATGTCTCCAAG
 ATTAATGAAGGAATTGGTGACAAAATTGGAATGTTCTTTTCAGTCAATGGCAACATTTTTTC
 ACTGGGTTTATAGTAGGATTTACACGTGGTTGGAAGCTAACCCCTGTGATTTTGGCCATC
 AGTCTGTCTTGGACTGTCAGCTGCTGTCTGGGCAAAGATACTATCTTCATTTACTGAT
 AAAGAACTCTTAGCGTATGCAAAAGCTGGAGCAGTAGCTGAAGAGGTCTTGGCAGCAATT
 AGAACTGTGATTGCATTTGGAGGACAAAAGAAAGAACTGAAAGGTACAACAAAAATTTA
 GAAGAAGCTAAAAGAATTGGGATAAAGAAAGCTATTACAGCCAATATTTCTATAGGTGCT
 GCTTTCCTGCTGATCTATGCATCTTATGCTCTGGCCTTCTGGTATGGGACCACCTGGTC
 CTCTCAGGGGAATATTCTATTGGACAAGTACTCACTGTATTCTTTTCTGTATTAATTGGG
 GCTTTTAGTGTTGGACAGGCATCTCCAAGCATTGAAGCATTGCAAAATGCAAGAGGAGCA
 GCTTATGAAATCTTCAAGATAATTGATAATAAGCCAAGTATTGACAGCTATTCGAAGAGT
 GGGCACAACACAGATAATATTAAGGAAATTTGGAATTCAGAAATGTTCACTTCAGTTAC
 CCATCTCGAAAAGATTAAGATCTTGAAGGTCTGAACCTGAAGGTGCAGAGTGGGCAG
 ACGGTGGCCCTGGTTGAAAACAGTGGCTGTGGGAAGAGCACAACTCCAGCTGATGCAG
 AGGCTCTATGACCCACAGAGGGGATGGTCAGTGTGATGGACAGGATATTAGGACCATA
 AATGTAAGGTTTCTACGGGAAATCATTGGTGTGGTGTGAGTCAGGAACCTGTATTGTTGCC



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ACCACGATAGCTGAAAACATTCGCTATGGCCGTGAAAATGTCACCATGGATGAGATTGAG
 AAAGCTGTCAAGGAAGCCAATGCCTATGACTTTATCATGAAACTGCCTCATAAATTTGAC
 ACCCTGGTTGGAGAGAGAGGGGCCAGTTGAGTGGTGGGCAGAAGCAGAGGATCGCCATT
 GCACGTGCCCTGGTTCGCAACCCCAAGATCCTCCTGCTGGATGAGGCCACGTGAGCCTTG
 GACACAGAAAGCGAAGCAGTGGTTCAGGTGGCTCTGGATAAGGCCAGAAAAGGTCGGACC
 ACCATTGTGATAGCTCATCGTTTGTCTACAGTTCGTAATGCTGACGTCATCGTGGTTTC
 GATGATGGAGTCATTGTGGAGAAAAGGAAATCATGATGAACTCATGAAAGAGAAAAGCATT
 TACTTCAAACCTTGCACAATGCAGACAGCAGGAAATGAAGTTGAATTAGAAAATGCAGCT
 GATGAATCCAAAAGTGAATTGATGCCTTGAAAATGCTTCAAATGATTCAAGATCCAGT
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 CTTAGTACCAAAGAGGCTCTGGATGAAAGTATACCTCCAGTTTCTTTTGGAGGATTATG
 AAGCTAAATTTAACTGAATGGCCTTATTTTGTGTTGGTGTATTTTGTGCCATTATAAT
 GGAGGCCGTGAACCAGCATTGCAATAATATTTTCAAAGATTATAGGGGTTTTTACAAGA
 ATTGATGATCCTGAAACAAAACGACAGAATAGTAACTTGTCTTCACTATTGTTTCTAGCC
 CTTGGAATTTTCTTTTATTACATTTTCTTTCAGGGTTTTCACATTTGGCAAAGCTGGA
 GAGATCCTCACCAAGCGGCTCCGATACATGGTTTTCCGATCCATGCTCAGACAGGATGTG
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 GCTGCTCAAGTTAAAGGGGCTATAGGTTCCAGGCTTGCTGTAATTACCCAGAATATAGCA
 AATCTTGGGACAGGAATAATTATATCCTTCATCTATGGTTGGCAACTAACACTGTTACTC
 TTAGCAATTGTACCCATCATTGCAATAGCAGGAGTTGTTGAAATGAAAATGTTGTCTGGA
 CAAGCACTGAAAGATAAGAAAGAACTAGAAGTTCTGGGAAGATCGCTACTGAAGCAATA
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 CAGAGTTTGCAGGTACCATACAGAAACTCTTTGAGGAAAGCACACATCTTTGGAATTACA
 TTTTCTTCCACCCAGGCAATGATGATTTTTCTATGCTGGATGTTTCCGGTTTTGGAGCC
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 CTCTGGAGCGGTTCTACGACCCTTGGCAGGGAAAGTGTGCTTGATGGCAAAGAAATA
 AAGCGACTGAATGTTGAGTGGCTCCGAGCACACCTGGGCATCGTGTCCCAGGAGCCCATC
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 CAGGAAGAGATTGTGAGGGCAGCAAAGGAGGCCAACATACATGCCTTCATCGAGTCACTG
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 CAACGCATTGCCATAGCTCGTGCCTTGTAGACAGCCTCATATTTTGTCTTTGGATGAA
 GCCACGTGAGTCTGGATACAGAAAGTAAAAGGTTGTCCAAGAAGCCCTGGACAAGGCC
 AGAGAAGGCCGCACCTGCATTGTGATTGCTCACCCTGTCCACCATCCAGAATGCAGAC
 TTAATAGTGGTGTTCAGAATGGCAGAGTCAAGGAGCATGGCACGCATCAGCAGTGTG
 GCACAGAAAGGCATCTATTTTTCAATGGTCAAGTGTCCAGGCTGGAACAAAGCGCCAGTGA
 ACTCTGACTGTATGAGATGTTAAATACTTTTTAATATTTGTTTATGATATGACATTTATTC
 AAAGTTAAAAGCAAACTTACAGAATTATGAAGAGGTATCTGTTTAACTTTTCTCAGT
 CAAGTTCAGAGTCTCAGAGACTTCGTAATTAAGGAACAGAGTGAGAGACATCATCAAG
 TGGAGAGAAATCATAGTTTAACTGCATTATAAATTTTATAACAGAAATTAAGTAGATTT
 TAAAAGATAAAATGTGTAATTTTGTATATTTTCCCATTGGACTGTAAGTACTGCTGCT
 TGCTAAAAGATTATAGAAGTAGCAAAAAGTATTGAAATGTTTGCATAAAGTGTCTATAAT
 AAAACTAACTTTTATGTGACTGGAGTCACTTTGTCCAAACTGCCTGTGAATATATCTTC
 TCTCAATTGGAATATTGTAGATAACTTCTGCTTTAAAAAGTTTTCTTTAAATATACCTA
 CTCATTTTTTGGGAATGGTTAAGCAGTTTAAATAATTCCTGTTGATATGTCTATTAC
 ATTGGGCTTACAGAACCATCTGGCTTCACTTCTTGGACTTGATCCTGCTGATTCTTG
 CATTTCCACATTAAGGTGGCTCTCAAACCCAAAACACAGATCGATATAAGATTTTAGGAG
 GTGGGGTGAAGCACAATTATGAAGTGCATATTATTCAGATGTATAGTAAACTTTGCAT

TGCTTTTATAAAGGGTCTTTAAGGATTTTTAAGATTTTTACACTTCCAAAGTACATTT
 ACTTTTTGTCTTGATAATGAATCACTTTTGCCAGTAATTGGCCTCTTCCAAAAGTGATCC
 TTCTGACTTACAGATGTTTAAAATGTGCCATGAGTTTAACTACATCTTGATACAAACATG
 ATAAAAAAAAAAAAAAAAAAAA

**5' Read Nucleotide
 Sequence:**

>OriGene 5' read for NM_000927 unedited
 AGAAACTAGCGATTTTGTNAATACGNACTTCACTATAGGGNCGGCCGCGCAATTCGGCA
 CGAGGCAAGCTCAAAGAAGCAGAGGCCGCTGTTCTGTTTCTTTAGGTCTTTCCACTAAAG
 TCGGAGTATCTTCTTCCAAAATTCACGTCTTGGTGGCCGTTCCAAGGAGCGCGAGGTGCG
 GGATGGATCTTGAAGGGGACCGCAATGGAGGAGCAAAGAAGAAGAACTTTTTTAACTGA
 ACAATAAAAGTGAAAAAGATAAGAAGGAAAAGAAACCACTGTCAGTGTATTTTCAATGT
 TTCGCTATTCAAATTTGGCTTGACAAGTTGTATATGGTGGTGGAACTTTGGCTGCCATCA
 TCCATGGGGCTGGACTTCCTCTCATGATGCTGGTGTGGAGAAATGACAGATATCTTTG
 CAAATGCAGGAAATTTAGAAGACTGATGTCAAACATCACTAATAGAAGTGATATCAATG
 ATACAGGTTCTTCATGAATCTGGAGGAAGACATGACCAGGTATGCCTATTATTACAGTG
 GAATTGGTGTGGGTGCTGTTGCTGCTTACATTCAGGTTTCATTTTGGTGCCTGGCAG
 CTGGAAGACAAATACACAAAATTAGAAAACAGTTTTTTCATGCTATAATGCGACAGGAGA
 TAGGCTGGTTTGTGTCACGATGTTGGGGAGCTTAACACCCGACTTACAGATGATGCTCT
 CCAAGATTAATGAAGNGAATTGGGTGACAAAATGGAATGTTNCTTTTCAGTCAATGGCAAC
 ATTTTTCACTGGGTTTATAGTAGGATTTACACGTGGTTTGAAGCTACCCCTTGTGATTTT
 GGCCATCAGTCCCTGCTTGGACTGTCAACTGCTGTCTGGGCAAAGATCTATCTTCACTT
 ACTGATAAAGAACTCTTAGC

**3' Read Nucleotide
 Sequence:**

>OriGene 3' read for NM_000927 unedited
 AATGGAACCGCGCCGCAATCTAGGATCGAGTTTTTTTTTTTTTTTTTATCATGTTTTGT
 ATCAAGATGTAGTTAACTCATGGCACATTTTAAACATCTGTAAGTCAGAAGGATCACTT
 TTGGAAGAGGCCAATTACTGGCAAAAGTGATTCATTATCAAGACAAAAAGTAAATGTACT
 TTGGAAGTGTA AAAATCTTAAAAATCCTTAAAGAACCCTTTATAAAAGCAATGCAAAGT
 ATTTACTATACATCTGAATAATATGCACTTCATAATTGTGCCTCACCCACCTCCTAAAA
 TCTTATATCGATCTGTGTTTTGGGTTTGGAGCCACCTTAATGTGGAAATGCAAGAATCA
 GCAGGATCAAGTCCAAGAAGAATGAAGCCAGATGGTTCTGTAAGACCCAATGTGAATAGA
 CATATACAAACAGGAATTTTAACTGCTTAACCATTCACAAAAATGAGTAGGTATAT
 TTAAGAAAACTTTTTAAAGCAGAAGTTATCTACAATTTCCAATTGAGAGAAGATATA
 TTCACAGGCAGTTTGGACAAGATGACTCCAGTCACATGAAAGTTTAGTTTTATTATAGAC
 ACTTTATGCAAACATTTCAATACTTTTTGCTACTTCTATAATCTTTTAGCAAGGCAGTCA
 GTTACAGTCCAAATGGGAAAATATAACAAAATTACACATTTTATCTTTTAAAATCTACT
 TTAATTTCTGTTATAAAATTTATAATGCAGTTTAACTATGATTTCTCTCCACTTGATGAT
 GTCTCTACTCTGTTCCCTTAATTACGAAGTCTCTGAAGACTCTGAACTTGACTGAGGAA
 TGTTAAACAGAACCTCCTCATAATCTGAAGTGTGCTTTTAACTTTGATAAATGTCTAT
 CTAACCAAATAAAAGTATTTACATCTATACAGTCGGAGTCACTGGCGCTTTGTTCCACC
 TGGCACTGACCATTGAAAAAATGCCTTT

Restriction Sites:

NotI-NotI

ACCN:

NM_000927

Insert Size:

4900 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 has been fully sequenced and the ORF associated with this clone was found to be a perfect match to NM_000927.

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_000927.3](#), [NP_000918.2](#)

RefSeq Size: 4872 bp

RefSeq ORF: 3843 bp

Locus ID: 5243

UniProt ID: [P08183](#)

Cytogenetics: 7q21.12

Domains: ABC_membrane, ABC_tran, AAA

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, 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. The protein encoded by this gene is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier. Mutations in this gene are associated with colchicine resistance and Inflammatory bowel disease 13. Alternative splicing and the use of alternative promoters results in multiple transcript variants. [provided by RefSeq, Feb 2017]

Transcript Variant: This variant (3) has multiple differences in the coding region but maintains the reading frame, compared to variant 1. This variant encodes isoform 2, which is shorter than isoform 1. Variants 2, 3, and 4 all encode the same isoform (2).