

## Product datasheet for RC216080

### P Glycoprotein (ABCB1) (NM\_000927) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	P Glycoprotein (ABCB1) (NM_000927) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	P Glycoprotein
Synonyms:	ABC20; CD243; CLCS; GP170; MDR1; p-170; P-GP; PGY1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216080 representing NM_000927 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGATCTTGAAGGGGACCGCAATGGAGGAGCAAAGAAGAAGAACTTTTTAACTGAACAATAAAAGTG  
AAAAAGATAAGAAGGAAAAGAAACCAACTGTCAGTGTATTTTCAATGTTTCGCTATTCAAATGGCTTGA  
CAAGTTGTATATGGTGGTGGGAACCTTTGGCTGCCATCATCCATGGGGCTGGACTTCCTCTCATGATGCTG  
GTGTTTGGAGAAATGACAGATATCTTTGCAAATGCAGGAAATTTAGAAGATCTGATGTCAAACATCACTA  
ATAGAAGTGATATCAATGATACAGGTTCTTCATGAATCTGGAGGAAGACATGACCAGGTATGCCTATTA  
TTACAGTGAATGGTGTGGGGTCTGGTTGCTGCTTACATTCAGGTTTCATTTTGGTGCCTGGCAGCT  
GGAAGACAAATACACAAAATTAGAAAACAGTTTTTTCATGCTATAATGCGACAGGAGATAGGCTGGTTTG  
ATGTGCACGATGTTGGGGAGCTTAACACCCGACTTACAGATGATGTCTCCAAGATTAATGAAGGAATTGG  
TGACAAAATTGGAATGTTCTTTCAGTCAATGGCAACATTTTTCACTGGGTTTATAGTAGGATTTACACGT  
GGTTGGAAGCTAACCCCTGTGATTTTGGCCATCAGTCTGTTCTTGGACTGTCAGCTGCTGTCTGGGCAA  
AGATACTATCTTCATTTACTGATAAAGAAGCTCTTAGCGTATGCAAAGCTGGAGCAGTAGCTGAAGAGGT  
CTTGGCAGCAATTAGAAGTGTGATTGCATTTGGAGGACAAAAGAAAGAACTTGAAGGTACAACAAAAAT  
TTAGAAGAAGCTAAAAGAATTGGGATAAAGAAAGCTATTACAGCCAATATTTCTATAGGTGCTGCTTCC  
TGCTGATCTATGCATCTTATGCTCTGGCCTTCTGGTATGGGACCACCTTGGTCTCTCAGGGGAATATTC  
TATTGGACAAGTACTCACTGTATTCTTTCTGTATTAATTGGGGCTTTTAGTGTTGGACAGGCATCTCCA  
AGCATTGAAGCATTGCAAATGCAAGAGGAGCAGCTTATGAAATCTTCAAGATAATTGATAATAAGCCAA  
GTATTGACAGCTATTCGAAGAGTGGGCACAAACCAGATAATATTAAGGGAAATTTGGAATTCAGAAATGT  
TCACTTCAGTTACCCATCTCGAAAAGAAGTTAAGATCTTGAAGGGTCTGAACCTGAAGGTGCAGAGTGGG  
CAGACGGTGGCCCTGGTTGAAACAGTGGCTGTGGGAAGAGCACAAACAGTCCAGCTGATGCAGAGGCTCT  
ATGACCCACAGAGGGGATGGTCAGTGTGATGGACAGGATATTAGGACCATAAATGAAGTTTCTACG  
GAAATCATTGGTGTGGTGAATCAGGAACCTGTATTGTTGCCACCAGATAGCTGAAAACATTCGCTAT



[View online »](#)

GGCCGTGAAAATGTCACCATGGATGAGATTGAGAAAGCTGTCAAGGAAGCCAATGCCTATGACTTTATCA  
TGAAACTGCCTCATAAATTTGACACCCTGGTTGGAGAGAGAGGGGCCAGTTGAGTGGTGGGCAGAAGCA  
GAGGATCGCCATTGCACGTGCCCTGGTTCGCAACCCCAAGATCCTCCTGCTGGATGAGGCCACGTGAGCC  
TTGGACACAGAAAGCGAAGCAGTGGTTCAGGTGGCTCTGGATAAGGCCAGAAAAGGTCGGACCACCATTG  
TGATAGCTCATCGTTTGTCTACAGTTCGTAATGCTGACGTCATCGCTGGTTTCGATGATGGAGTCATTGT  
GGAGAAAGGAAATCATGATGAACATGAAAGAGAAAAGGCATTTACTTCAAACCTGTGACAAATGCAGACA  
GCAGGAAATGAAGTTGAATTAGAAAATGCAGCTGATGAATCCAAAAGTGAATTTGATGCCTTGGAAATGT  
CTTCAAATGATTCAAGATCCAGTCTAATAAGAAAAAGATCAACTCGTAGGAGTGTCCGTGGATCACAAAGC  
CCAAGACAGAAAAGCTTAGTACCAAAGAGGCTCTGGATGAAAGTATACCTCCAGTTTCCTTTTGGAGGATT  
ATGAAGCTAAATTTAACTGAATGGCCTTATTTTGTGTTGGTGTATTTTGTGCCATTATAAATGGAGGCC  
TGCAACCAGCATTGCAATAATATTTTCAAAGATTATAGGGGTTTTTACAAGAATTGATGATCCTGAAAC  
AAAACGACAGAATAGTAACTTGTCTTCACTATTGTTTCTAGCCCTTGGAAATATTTCTTTTATTACATTT  
TTCCTTCAGGGTTTCACATTTGGCAAAGCTGGAGAGATCCTACCAAGCGGCTCCGATACATGGTTTTCC  
GATCCATGCTCAGACAGGATGTGAGTTGGTTTGTGACCCATAAAACACCACTGGAGCATTGACTACCAG  
GCTCGCCAATGATGCTGCTCAAGTTAAAGGGGCTATAGGTTCCAGGCTTGTGTAATTACCCAGAATATA  
GCAAATCTTGGGACAGGAATAATTATATCCTTCATCTATGGTTGGCAACTAACACTGTTACTCTTAGCAA  
TTGTACCCATCATTGCAATAGCAGGAGTTGTTGAAATGAAAATGTTGTCTGGACAAGCACTGAAAGATAA  
GAAAGAACTAGAAGGTTCTGGGAAGATCGCTACTGAAGCAATAGAAAACCTCCGAACCGTTGTTCTTTG  
ACTCAGGAGCAGAAGTTTGAACATATGTATGCTCAGAGTTTGCAGGTACCATACAGAAAACCTTTGAGGA  
AAGCACACATCTTTGGAATTACATTTTCTTCCACCCAGGCAATGATGATTTTTCTATGCTGGATGTTT  
CCGGTTTGGAGCCTACTTGGTGGCACATAAACTCATGAGCTTTGAGGATGTTCTGTTAGTATTTTACAGT  
GTTGTCTTTGGTGCCATGGCCGTGGGGCAAGTCAAGTTCATTTGCTCCTGACTATGCCAAAGCCAAAATAT  
CAGCAGCCACATCATCATGATCATTGAAAAACCCCTTTGATTGACAGCTACAGCACGGAAGGCCTAAT  
GCCGAACACATTGGAAGGAAATGTCACATTTGGTGAAGTTGTATTCAACTATCCCACCCGACCCGGACATC  
CCAGTGCTTCAGGGACTGAGCCTGGAGGTGAAGAAGGGCCAGACGCTGGCTCTGGTGGGCAGCAGTGGCT  
GTGGGAAGAGCACAGTGGTCCAGCTCCTGGAGCGGTTCTACGACCCCTTGGCAGGGAAAAGTGTGCTTGA  
TGGCAAAGAAAATAAGCGACTGAATGTTTCAAGTGGCTCCGAGCACACCTGGGCATCGTGTCCAGGAGCCC  
ATCCTGTTTACTGCAGCATTGCTGAGAACATTGCCTATGGAGACAACAGCCGGTGGTGTACAGGAAG  
AGATTGTGAGGGCAGCAAAGGAGGCCAACATACATGCCTTCATCGAGTCACTGCCTAATAAATATAGCAC  
TAAAGTAGGAGACAAAGGAACTCAGCTCTCTGGTGGCCAGAAAACAACGCATTGCCATAGCTCGTGCCTT  
GTTAGACAGCCTCATATTTTGTCTTTGGATGAAGCCACGTCAGCTCTGGATACAGAAAGTAAAAGGTTG  
TCCAAGAAGCCCTGGACAAAGCCAGAGAAGGCCACCTGCATTGTGATTGCTCACCGCCTGTCCACCAT  
CCAGAATGCAGACTTAATAGTGGTGTTCAGAATGGCAGAGTCAAGGAGCATGGCACGCATCAGCAGCTG  
CTGGCACAGAAAAGGCATCTATTTTCAATGGTCAAGTGTCCAGGCTGGAACAAAGCGCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC216080 representing NM\_000927  
 Red=Cloning site Green=Tags(s)

```

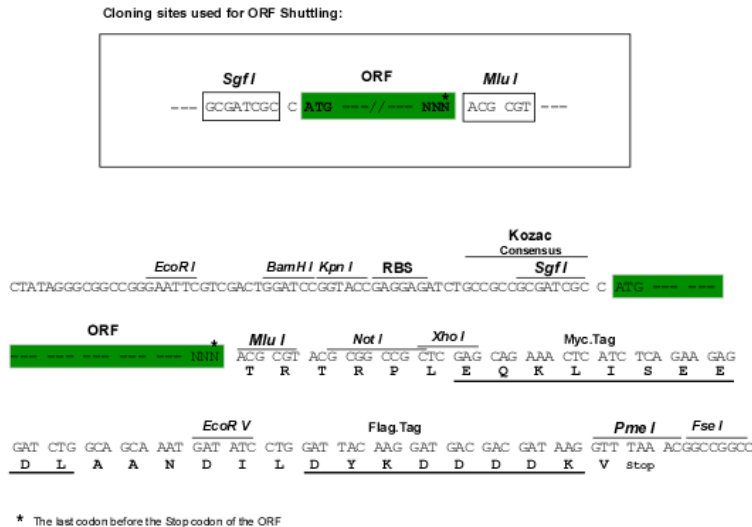
MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTAAIIHGAGLPLMML
VFGEMTDIFANAGNLEDLMSNITNRSDINDTGFMMNLEEDMTRYAYYYSGIGAGVLAAYIQVSFWCLAA
GRQIHKIRKQFFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTFGIVGFTR
GWKLTLVILAISPVLGLSAAVWAKILSSFDTKELLAYAKAGAVAEVLAIRTVIAFGGQKKELERYNKN
LEEAKRIGIKKAITANISIGAAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFFSVLIGAFSVGQASP
SIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSG
QTVALVNGSGCGKSTTVQLMQRLYDPTGEMVSDGQDIRTINVRFLEIIGVVSQEPVLFATTIAENIRY
GRENVTMDEIEKAVKEANAYDFIMKLPKFDL VGERGACL SGGQKQRIAIARALVRNPKILLLDEATSA
LDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVI VEKGNHDELMKEKGIYFKLVTMQT
AGNEVELENAADESKSEIDALEMSNDSRSSLIRKRSTRRSVRSQAQDRKLSTKEALDESIPPVSWRI
MKLNLTEWPFYVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQNSNLFSLFLALGIISFITF
FLQGFTFGKAGEILTKRLRYMFRSMLRQDVSWFDDPKNTTGAL TTRLANDAAQVKAIGSRLAVITQNI
ANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVEMKMLSGQALKDKKELESGKIAATEIENFRVTVSL
TQEQKFEHMYAQLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSPFEDVLLVFS
VVFAMAVGVQVSSFPADYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVFNYPTRPDI
PVLQGLSLEVKKQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLDDGKEIKRLNVQWLRRAHLGIVSQEP
ILFDCSIAENIAYGDNRSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARAL
VRQPHILLLDEATSALDTESEKVVQEAALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHOQL
LAQKGIYFSMVSQAGTKRQ
    
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_000927

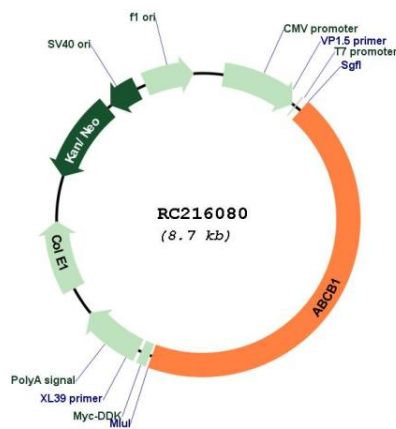
**ORF Size:** 3840 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_000927.4</a>
<b>RefSeq Size:</b>	4872 bp
<b>RefSeq ORF:</b>	3843 bp
<b>Locus ID:</b>	5243
<b>UniProt ID:</b>	<a href="#">P08183</a>
<b>Cytogenetics:</b>	7q21.12
<b>Domains:</b>	ABC_membrane, ABC_tran, AAA
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
<b>Protein Pathways:</b>	ABC transporters
<b>MW:</b>	141.3 kDa

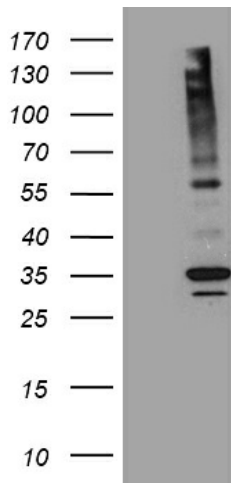
**Gene Summary:**

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]

**Product images:**



Circular map for RC216080



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ABCB1 (Cat# RC216080, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ABCB1 (Cat# [TA809796])(1:2000).