

## Product datasheet for **RG205640**

### **ABCG2 (NM\_004827) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ABCG2 (NM_004827) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ABCG2
Synonyms:	ABC15; ABCP; BCRP; BCRP1; BMDP; CD338; CDw338; EST157481; GOUT1; MRX; MXR; MXR-1; MXR1; UAQTL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG205640 representing NM\_004827  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCTCCAGTAATGTGCAAGTTTTATCCAGTGTGACAAAGAAACCAATGGCTTCCCGCGACAG  
 CTCCAATGACCTGAAGGCATTTACTGAAGGAGCTGTGTTAAGTTTTCAACATCTGCTATCGAGTAAA  
 ACTGAAGAGTGGCTTTCTACCTGTGCGAAAACAGTTGAGAAAAGAAATATTATCGAATATCAATGGGATC  
 ATGAAACCTGGTCTCAACGCCATCTGGGACCCACAGGTGGAGGCAAATCTTCGTTATTAGATGTCTTAG  
 CTGCAAGGAAAGATCCAAGTGGATTATCTGGAGATGTTCTGATAAATGGAGCACCAGGACCTGCCAATTT  
 CAAATGTAATTCAGGTTACGTGGTACAAGATGATGTTGTGATGGGCACTCTGACGGTGAGAGAAAACCTA  
 CAGTTCTCAGCAGCTCTCGGCTGCAACAACATGACGAATCATGAAAAAACGAACGGATTAACAGGG  
 TCATTCAAGAGTTAGGTCTGGATAAAGTGGCAGACTCCAAGTTGGAACCTAGTTTATCCGTGGTGTGTC  
 TGGAGGAGAAAGAAAAGGACTAGTATAGGAATGGAGCTTACTACTGATCCTTCCATCTTGTCTTGGAT  
 GAGCCTACAACCTGGCTTAGACTCAAGCAGCAAAATGCTGTCCTTTTGTCTCTGAAAAGGATGTCTAAGC  
 AGGGACGAACAATCATCTTCTCCATTCATCAGCCTCGATATTCCATCTTCAAGTTGTTTGTAGCCTCAC  
 CTTATTGGCCTCAGGAAGACTTATGTTCCACGGCCTGCTCAGGAGGCCTTGGGATACTTTGAATCAGCT  
 GGTATCACTGTGAGGCCTATAATAACCCTGCAGACTTCTTCTTGGACATCATTAAATGGAGATCCACTG  
 CTGTGGCATTAAACAGAGAAGAAGACTTTAAAGCCACAGAGATCATAGAGCCTTCCAAGCAGGATAAGCC  
 ACTCATAGAAAATTAGCGGAGATTTATGTCAACTCCTCCTTCTACAAAGAGACAAAAGCTGAATTACAT  
 CAACTTTCCGGGGTGAGAAGAAGAAGATCACAGTCTTCAAGGAGATCAGCTACACCACCTCCTTCT  
 GTCATCAACTCAGATGGGTTTCCAAGCGTTCATTCAAAAACCTTGTGGTAATCCCAGGCCTCATAGC  
 TCAGATCATTGTCACAGTCGTAAGTGGACTGGTTATAGGTGCCATTTACTTTGGGCTAAAAAATGATTCT  
 ACTGGAATCCAGAACAGAGCTGGGGTCTCTTCTCTGACGACCAACCAGTGTTTCAGCAGTGTTCAG  
 CCGTGGAACTCTTGTGGTAGAGAAGAAGCTCTTCATACATGAATACATCAGCGGATACTACAGAGTGTC  
 ATCTTATTTCTTGGAAAACCTGTTATCTGATTTATTACCATGAGGATGTTACCAAGTATTATTTACC  
 TGTATAGTGTACTTCATGTTAGGATTGAAGCCAAAGCAGATGCCTTCTTCGTTATGATGTTTACCCTTA  
 TGATGGTGGCTTATTCAGCCAGTTCATGGCACTGGCCATAGCAGCAGGTGAGAGTGTGGTTTCTGTAGC  
 AACACTTCTCATGACCATCTGTTTTGTGTTTATGATGATTTTTTTCAGGTCTGTTGGTCAATCTCACACC  
 ATTGATCTTGGCTGTCATGGCTTCAGTACTTCAGCATTCCACGATATGGATTTACGGCTTTCAGCATA  
 ATGAATTTTTGGGACAAAACCTTCTGCCAGGACTCAATGCAACAGGAAACAATCCTTGTAACATGCAAC  
 ATGTAAGTGGCAAGAATATTTGGTAAAGCAGGGCATCGATCTCTCACCTGGGGCTTGTGGAAAGATCAC  
 GTGGCCTTGGCTTGTATGATTGTTATTTTCTCACAATTGCTACCTGAAATTGTTATTTCTAAAAAAT  
 ATTCT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG205640 representing NM\_004827  
 Red=Cloning site Green=Tags(s)

MSSSNVEVFIPVSQGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLSGFLPCRKPVEKEILSNINGI  
 MKPGLNAILGPTGGGKSSLLDVLAAARKDPSGLSGDVLINGAPRPANFKCNSGYVVQDDVVMGTLTVRENL  
 QFSAALRLATMTNHEKNERINRVIQELGLDKVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLD  
 EPTTGLDSSTANAVLLLLKRMASKQGRITIFSIIHQPRYSIFKLFDSLTLASGRLMFHGPAQEALGYFESA  
 GYHCEAYNNPADFFLDIINGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAEIYVNSSFYKETKAELH  
 QLSGGEKKKKITYFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKND  
 TGIQNRAGVLFLLTTNQCFSSVSAVELFVVEKKLFIHEYISGYRVSYSYFLGKLLSDLLPMRMLPSIIFT  
 CIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVSVATLLMTICFVMMIFSGLLVNLTT  
 IASWLSWLQYFSIPRYGFTALQHNEFLGQNFPCPLNATGNNPCNYATCTGEEYLVKQGIDLSPWGLWKNH  
 VALACMIVIFLTIAYLKLLFLKKYS

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_004827

**ORF Size:** 1965 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](mailto: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\\_004827.3](#)

**RefSeq Size:** 4445 bp

**RefSeq ORF:** 1968 bp

**Locus ID:** 9429

**UniProt ID:** [Q9UNQ0](#)

**Cytogenetics:** 4q22.1

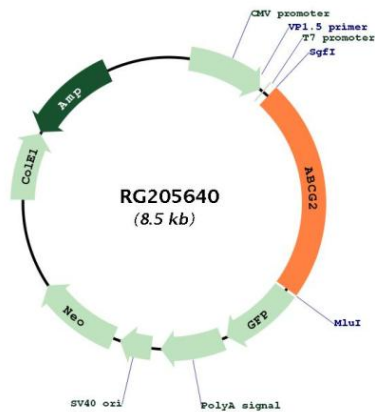
**Domains:** ABC\_tran, AAA

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** ABC transporters

**Gene Summary:**

The membrane-associated protein encoded by this gene is included in 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 White subfamily. Alternatively referred to as a breast cancer resistance protein, this protein functions as a xenobiotic transporter which may play a major role in multi-drug resistance. It likely serves as a cellular defense mechanism in response to mitoxantrone and anthracycline exposure. Significant expression of this protein has been observed in the placenta, which may suggest a potential role for this molecule in placenta tissue. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012]

**Product images:**


Circular map for RG205640