

## Product datasheet for **SC320948**

### **ABCG2 (NM\_004827) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ABCG2 (NM_004827) Human Untagged Clone
Tag:	Tag Free
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 (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_004827.2  
 GTCAGCGCTGCCTGAGCTCGTCCCTGGATGTCCGGGTCTCCCAGGCGGCCACCCGCCG  
 GCTCCCATCGTGACCTCCAGCCGAGCGCTCCCACGCCGGCCGCGCGGAGGGGAGCG  
 CTCGGGCGCGCCGGTGTGGTTGGGGGAAGGGTGTGCCGCGCGGGCTGCGTGTGT  
 GCCCACTCAAAGGTTCCGGGCGCGCAGGAGGGAAGAGGCAGTCCCCGCACTCCCACTG  
 AGATTGAGAGACGCGCAAGGAGGCAGCCTGTGGAGGAACTGGTAGGATTTAGGAATGC  
 ACCGTGACATGCTTGGTGGTCTTGTAAAGTGGAACTGCTGCTTTAGAGTTTGTGGG  
 AGGTCCGGGTGACTCATCCCAACATTTACATCCTTAATTGTTAAAGCGCTGCCTCCGAGC  
 GCACGCATCCTGAGATCCTGAGCCTTTGGTTAAGACCGAGCTCTATTAAGCTGAAAAGAT  
 AAAAACTCCTCAGATGTCTTCCAGTAATGTGCAAGTTTTATCCCAGTGTCAAGGAAA  
 CACCAATGGCTTCCCGCGACAGCTTCCAATGACCTGAAGGCATTTACTGAAGGAGCTGT  
 GTTAAGTTTTATAACATCTGCTATCGAGTAAACTGAAGAGTGGCTTTCTACCTGTGCG  
 AAAACCAGTTGAGAAAGAAATATTATCGAATATCAATGGGATCATGAAACCTGGTCTCAA  
 CGCCATCTGGGACCCACAGGTGGAGGCAATCTTCGTTATTAGATGTCTTAGCTGCAAG  
 GAAAGATCCAAGTGGATTATCTGGAGATGTTCTGATAAATGGAGCACCGGACCTGCCAA  
 TTTCAAATGTAATTCAGGTTACGTGGTACAAGATGATGTTGTGATGGGCACTCTGACGGT  
 GAGAGAAAATTACAGTTCTCAGCAGCTTTCGGCTTGCAACAATATGACGAATCATGA  
 AAAAAACGAACGGATTAAACAGGGTCATTCAAGAGTTAGGTCTGGATAAAGTGGCAGACTC  
 CAAGGTTGGAACCTCAGTTTATCCGTGGTGTGTCTGGAGGAGAAAGAAAAGGACTAGTAT  
 AGGAATGGAGCTTACTACTGATCCTTCCATCTTGTCTTGGATGAGCCTACAACCTGGCTT  
 AGACTCAAGCACAGCAAATGCTGTCTTTTGTCTGAAAAGGATGTCTAAGCAGGGACG  
 AACATCATCTTCCATTATCATCAGCCTCGATATCCATCTTCAAGTTGTTTGTATAGCCT  
 CACCTTATTGGCCTCAGGAAGACTTATGTTCCACGGGCTGCTCAGGAGGCTTGGGATA  
 CTTTGAATCAGCTGGTTATCACTGTGAGGCCTATAATAACCCTGCAGACTTCTTCTTGA  
 CATCATTAATGGAGATTCACCTGCTGTGGCATTAAACAGAGAAGAAGACTTTAAAGCCAC  
 AGAGATCATAGAGCCTTCCAAGCAGGATAAGCCACTCATAGAAAAATTAGCGGAGATTTA  
 TGTCAACTCCTCCTTCTACAAAGAGACAAAAGCTGAATTACATCAACTTCCGGGGTGA  
 GAAGAAGAAGAAGATCACAGTCTTCAAGGAGATCAGCTACACCACCTCCTCTGTCATCA  
 ACTCAGATGGGTTTCCAAGCGTTCATTCAAAAACCTGCTGGGTAATCCCCAGGCCTCTAT  
 AGCTCAGATCATTGTACAGTCTACTGGGACTGGTTATAGGTGCCATTTACTTTGGGCT  
 AAAAAATGATTCTACTGGAATCCAGAACAGAGCTGGGTTCTCTTCTCCTGACGACCAA  
 CCAGTGTTCAGCAGTGTTCAGCCGTGGAACCTTTGTGGTAGAGAAGAAGCTCTTCAT  
 ACATGAATACATCAGCGGATACTACAGAGTGCATCTTATTTCTTGGAAAACCTGTTATC  
 TGATTTATTACCCATGAGGATGTTACCAAGTATTATTTACCTGTATAGTGTACTTCAT  
 GTTAGGATTGAAGCCAAAGGCAGATGCCTTCTTCGTTATGATGTTACCCCTATGATGGT  
 GGCTTATTCAGCCAGTTCATGGCACTGGCCATAGCAGCAGGTGAGAGTGTGGTTTCTGT  
 AGCAACTTCTCATGACCATCTGTTTTGTGTTTATGATGATTTTTTTCAGGTCTGTTGGT  
 CAATCTCACAACCATTGCATCTTGGCTGTATGGCTTCAGTACTCAGCATTCCACGATA  
 TGGATTTACGGCTTTGCAGCATAATGAATTTTTGGGACAAAACCTCTGCCAGGACTCAA  
 TGCAACAGGAAACAATCCTTGTAACTATGCAACATGTAAGTGGCGAAGAATATTTGGTAAA  
 GCAGGGCATCGATCTCTACCCTGGGGCTGTGGAAGAATCACGTGGCCTTGGCTTGTAT  
 GATTGTTATTTTCTCACAATTGCCTACCTGAAATTTGTTATTTCTTAAAAAATATTCTTA  
 AATTTCCCTTAATTCAGTATGATTTATCCTCACATAAAAAAGAAGCACTTTGATTGAAG  
 TATTCAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_004827

**Insert Size:** 2500 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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_004827.2](#), [NP\\_004818.2](#)

**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]  
Transcript Variant: This variant (1) encodes the longest isoform (1).