

Product datasheet for **RG233012**

ABCG2 (NM_001257386) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABCG2 (NM_001257386) 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)



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ORF Nucleotide Sequence:

>RG233012 representing NM_001257386
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCTCCAGTAATGTGCAAGTTTTATCCCAGTGTCAAGGAAACCAATGGCTTCCCCGCGACAG
 CTCCAATGACCTGAAGGCATTTACTGAAGGAGCTGTGTTAAGTTTTCAACATCTGCTATCGAGTAAA
 ACTGAAGAGTGGCTTTCTACCTGTGCGAAAACAGTTGAGAAAAGAAATATTATCGAATATCAATGGGATC
 ATGAAACCTGGTCTCAACGCCATCTGGGACCCACAGGTGGAGGCAAATCTTCGTTATTAGATGTCTTAG
 CTGCAAGGAAAGATCCAAGTGGATTATCTGGAGATGTTCTGATAAATGGAGCACCAGGACCTGCCAATTT
 CAAATGTAATTCAGGTTACGTGGTACAAGATGATGTTGTGATGGGCACTCTGACGGTGAGAGAAAACCTA
 CAGTTCTCAGCAGCTCTTCGGCTGCAACAACATGACGAATCATGAAAAAACGAACGGATTAACAGGG
 TCATTCAAGAGTTAGGTCTGGATAAAGTGGCAGACTCCAAGTTGGAACCTAGTTTATCCGTGGTGTGTC
 TGGAGGAGAAAAGAAAAGGACTAGTATAGGAATGGAGCTTACTACTGATCCTTCCATCTTGTCTTGGAT
 GAGCCTACAACCTGGCTTAGACTCAAGCAGCAAAATGCTGTCCTTTTGGCTCTGAAAAGGATGTCTAAGC
 AGGGACGAAACAATCATCTTCTCCATTCATCAGCCTCGATATTCCATCTTCAAGTTGTTTGATAGCCTCAC
 CTTATTGGCCTCAGGAAGACTTATGTTCCACGGCCTGCTCAGGAGGCCTTGGGATACTTTGAATCAGCT
 GGTATCACTGTGAGGCCTATAATAACCCTGCAGACTTCTTCTGGACATCATTAAATGGAGATCCACTG
 CTGTGGCATTAAACAGAGAAGAAGACTTTAAAGCCACAGAGATCATAGAGCCTTCCAAGCAGGATAAGCC
 ACTCATAGAAAATTAGCGGAGATTTATGTCAACTCCTCCTTCTACAAGAGACAAAAGCTGAATTACAT
 CAATTTCCGGGGGTGAGAAGAAGAAGATCACAGCTTCAAGGAGATCAGCTACACCACCTCCTTCT
 GTCATCAACTCAGATGGGTTTCCAAGCGTTCATTCAAAAACCTGCTGGGTAATCCCAGGCCTCTATAGC
 TCAGATCATTGTCACAGTCGACTGGGACTGGTTATAGGTGCCATTTACTTTGGGCTAAAAAATGATTCT
 ACTGGAATCCAGAACAGAGCTGGGGTCTCTTCTCTGACGACCAACCAGTGTTTCAGCAGTGTTTCAG
 CCGTGGAACTCCTTGTGGTAGAGAAGAAGCTCTTCATACATGAATACATCAGCGGATACTACAGAGTGTC
 ATCTTATTTCTTGGAAAACCTGTTATCTGATTTATTACCCATGAGGATGTTACCAAGTATTATTTACC
 TGTATAGTGTACTTCATGTTAGGATTGAAGCCAAAGCAGATGCCTTCTTCGTTATGATGTTTACCCTTA
 TGATGGTGGCTTATTCAGCCAGTCCATGGCACTGGCCATAGCAGCAGGTGAGAGTGTGGTTTCTGTAGC
 AACACTTCTCATGACCATCTGTTTTGTGTTTATGATGGTCTGTTGGTCAATCTCACAAACCATTGCATCTT
 GGCTGTATGGCTTCAGTACTTACGATTCACGATATGGATTTACGGCTTTCAGCATAATGAATTTTT
 GGGACAAAACCTTCTGCCAGGACTCAATGCAACAGGAAACAATCCTTGTAACTATGCAACATGACTGGC
 GAAGAATATTTGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG233012 representing NM_001257386
 Red=Cloning site Green=Tags(s)

MSSSNVEVFIPVSGQNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLSGFLPCRKPVEKEILSNINGI
 MKPGLNAILGPTGGKSSLLDLVAARKDPSGLSGDVLINGAPRANFKCNSGYVVQDDVVMGTLTVRENL
 QFSAALRLATMTNHEKNERINRVIQELGLDKVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLD
 EPTTGLDSSTANAVLLLLKRMSKQGRITIFSIIHQPRYSIFKLFDSLTLASGRLMFHGPAQEALGYFESA
 GYHCEAYNNPADFFLDIINGDSTAVALNREEDFKATEIIEPSKQDKPLIEKLAIEYVNSFFYKETAELH
 QLSGGEKKKKITVFKEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIVTVVLGLVIGAIYFGLKND
 TGIQNRAGVLFLLTTNQCFSVSAVELFVVEKLFIEHYISGYRVSYYFLGKLLSDLLPMRMLPSIIFT
 CIVYFMLGLKPKADAFFVMMFTLMMVAYSASSMALAIAAGQSVSVATLLMTICFVMMVCWSISQPLHL
 GCHGFSTSAFHMDLRLCSIMNFWDKTSAQDSMQQETILVTMQHVLAKNIW

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

OTI Disclaimer:	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:	<ol style="list-style-type: none"> 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_001257386.2
RefSeq Size:	4290 bp
RefSeq ORF:	1836 bp
Locus ID:	9429
UniProt ID:	Q9UNQ0
Cytogenetics:	4q22.1
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]