

Product datasheet for **RC205640**

ABCG2 (NM_004827) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ABCG2 (NM_004827) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABCG2
Synonyms:	ABC15; ABCP; BCRP; BCRP1; BMDP; CD338; CDw338; EST157481; GOUT1; MRX; MXR; MXR-1; MXR1; UAQTL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC205640 representing NM_004827
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGTCCTCCAGTAATGTGCAAGTTTTATCCCAGTGTCAAGGAAACACCAATGGCTTCCCGCGACAG
CTTCCAATGACCTGAAGGCATTTACTGAAGGAGCTGTGTTAAGTTTTATAACATCTGCTATCGAGTAAA
ACTGAAGAGTGGCTTTCTACCTGTGCGAAAACAGTTGAGAAAAGAAATATTATCGAATATCAATGGGATC
ATGAAACCTGGTCTCAACGCCATCTGGGACCCACAGGTGGAGGCAAATCTTCGTTATTAGATGTCTTAG
CTGCAAGGAAAGATCCAAGTGGATTATCTGGAGATGTTCTGATAAATGGAGCACCAGGACCTGCCAATTT
CAAATGTAATTCAGGTTACGTGGTACAAGATGATGTTGTGATGGGCACTCTGACGGTGAGAGAAAACCTA
CAGTTCTCAGCAGCTCTCGGCTGCAACAACATGACGAATCATGAAAAAACGAACGGATTAACAGGG
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GAGCCTACAACCTGGCTTAGACTCAAGCAGCAAAATGCTGTCCTTTTGTCTCTGAAAAGGATGTCTAAGC
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CTTATTGGCCTCAGGAAGACTTATGTTCCACGGCCTGCTCAGGAGGCCTTGGGATACTTTGAATCAGCT
GGTTATCACTGTGAGGCCTATAATAACCCTGCAGACTTCTTCTGGACATCATTAAATGGAGATCCACTG
CTGTGGCATTAAACAGAGAAGAAGACTTTAAAGCCACAGAGATCATAGAGCCTTCCAAGCAGGATAAGCC
ACTCATAGAAAATTAGCGGAGATTTATGTCAACTCCTCCTTCTACAAGAGACAAAAGCTGAATTACAT
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GTGGCCTTGGCTTGTATGATTGTTATTTTCTCACAATTGCTACCTGAAATTGTTATTTCTAAAAAAT
ATTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205640 representing NM_004827
 Red=Cloning site Green=Tags(s)

MSSSNVEVFIPVSGNTNGFPATASNDLKAFTEGAVLSFHNICYRVKLSGFLPCRKPVEKEILSNINGI
 MKPGLNAILGPTGGKSSLLDVLAAARKDPSGLSGDVLINGAPRPANFKCNSGYVVQDDVVMGTLTVRENL
 QFSAALRLATMTNHEKNERINRVIQELGLDKVADSKVGTQFIRGVSGGERKRTSIGMELITDPSILFLD
 EPTTGLDSSSTANAVLLLLKRMSKQGRTIIFSIIHQPRYSIFKLFDSLTLASGRLMFHGPAQEALGYFESA
 GYHCEAYNNPADFFLDIINGDSTAVLNREEDFKATEIIIEPSKQDKPLIEKLAEIYVNSSFYKETAELH
 QLSGGEKKKKITVFEISYTTSFCHQLRWVSKRSFKNLLGNPQASIAQIIIVTVVLGLVIGAIYFGLKNS
 TGIQNRAGVLFLLTTNQCFSVSAVELFVVEKKLFIHEYISGYRVSSYFLGKLLSDLLPMRMLPSIIFT
 CIVYFMLGLKPKADAFFVMMFTLMVAYSASSMALAIAAGQSVSVATLLMTICFVMMIFSGLLVNLTT
 IASWLSWLQYFSIPRYGFTALQHNEFLGQNFPCPLNATGNNPCNYATCTGEEYLVKQGIDLSPWGLWKNH
 VALACMIVIFLTIAYLKLLFLKKYS

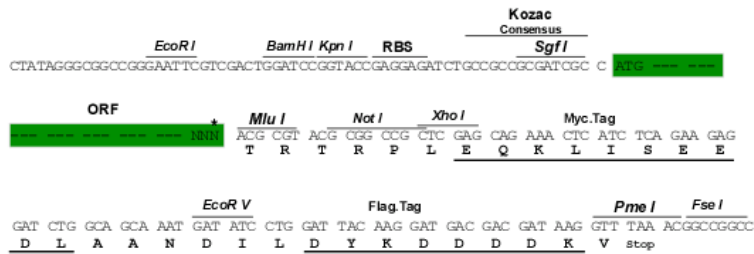
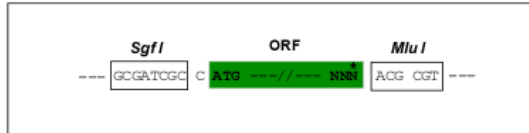
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2774_e01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

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 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

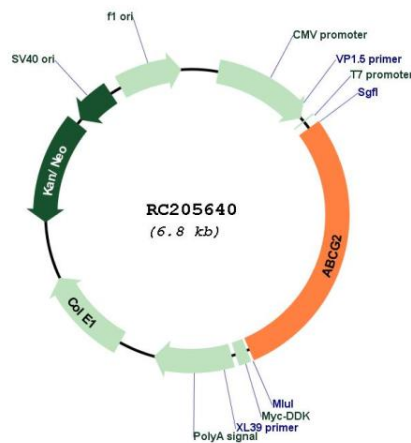
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

Protein Pathways: ABC transporters

MW: 72.1 kDa

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 RC205640