

## Product datasheet for **RC220827**

### **ABCG8 (NM\_022437) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ABCG8 (NM_022437) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ABCG8
Synonyms:	GBD4; STSL; STSL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC220827 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGGGAAGCGCCAGAGGAGAGAGGGCTGCCGAAAGGGGCCACTCCCAGCATACCTCGGGCCTCC  
 AGGATAGATTGTTCTCCTCTGAAAGTGACAACAGCCTGTACTTCACCTACAGTGGCCAGCCCAACACCCCT  
 GGAGGTACAGACCTCAACTACCAGGTGGACTGGCCTCTCAGGTCCTTGGTTTGGAGCAGCTGGCTCAG  
 TTCAAGATGCCCTGGACATCTCCAGCTGCCAGAATTCTGTGAGCTGGGCATCCAGAACCTAAGCTTCA  
 AAGTGAGAAGTGGGCAGATGCTGGCCATCATAGGGAGCTCAGGTTGTGGGAGAGCCTCCTTGCTAGATGT  
 GATCACTGGCCGAGGTACGGCGCAAGATCAAGTCAGGCCAGATCTGGATCAATGGGCAGCCAGCTCG  
 CCTCAGCTGGTGAGGAAGTGTGTGGCCACGTGCGCCAGCACACCAGCTGCTCCCCAATTGACTGTGC  
 GAGAGACCTTGGCCTTATTGCCAGATGCGGCTGCCAGAACCCTCTCCAGGCCAGCGTGACAAAAG  
 GGTGGAGGACGTGATCGCGGAGCTGCGGCTTAGGCAGTGGCTGACACCCGCGTGGGCAACATGTACGTG  
 CGGGGGTTGTGGGGGGTGGAGCGAGGAGATCAGCATTGGGGTGCAGCTCCTGTGGAACCCAGGAATCC  
 TTATTCTCGACGAACCCACCTCTGGGCTCGACAGCTTACAGCCACAACCTGGTGAAGACCTTGTCCAG  
 GCTGGCCAAAGGCAACCGGCTGGTGTCTCATCTCCCTCCACCAGCCTCGCTCTGACATCTTCAGGCTGTT  
 GATCTGGTCTCCTGATGACGTCTGGCACCCCATCTACTTAGGGGCGGCCAGCACATGGTCCAGTATT  
 TCACAGCCATCGGCTACCCCTGTCTCGCTACAGCAATCTGTGACTTCTATGTGGACCTGACCAGCAT  
 TGACAGGCGCAGCAGAGAGCAGGAATTGGCCACCAGGGAGAAGGCTCAGTCACTCGCAGCCCTGTTTCTA  
 GAAAAAGTGGCTGACTTAGATGACTTTCTATGAAAGCAGAGACGAAGGATCTTGACGAGGACACCTGTG  
 TGGAAAGCAGCGTGACCCCACTAGACACCAACTGCCTCCCGAGTCTACGAAGATGCCTGGGGCGGTGCA  
 GCAGTTTACGACGCTGATCCGTCGTGAGATTTCCAACGACTTCCGAGACCTGCCACCCCTCCTCATCCAT  
 GGGGCGGAGGCTGTCTGATGTCATGACCATCGGCTTCTCTATTTTGGCCATGGGAGCATCCAGCTCT  
 CCTTCATGGATACAGCCGCCCTTGTTCATGATCGGTGCTCTCATCCCTTTCAACGTCATTCTGGATGT  
 CATCTCCAAATGTTACTCAGAGAGGGCAATGCTTTACTATGAACTGGAAGACGGGCTGTACACCACTGGT  
 CCATATTTCTTTGCCAAGATCCTCGGGGAGCTTCCGGAGCACTGTGCCTACATCATCTACGGGATGC  
 CCACCTACTGGCTGGCCAACTGAGGCCAGGCCTCCAGCCCTTCTGCTGCATCTCTGCTGGTGTGGCT  
 GGTGGTCTTCTGTTGCAGGATTATGGCCCTGGCCGCCGCGCCCTGCTCCCCACCTTCCACATGGCCTCC  
 TTCTTCAGCAATGCCCTCTACAACCTCTTACCTCGCCGGGGGTTTCATGATAAACTTGAGCAGCCTGT  
 GGACAGTGCCCGGTGGATTTCCAAAGTGCCTTCTGCGGTGGTGTGTTTGAAGGGCTGATGAAGATTCA  
 GTTCAGCAGAAGAACTTATAAAATGCCTCTCGGGAACCTCACCATCGCGGTCTCAGGAGATAAAATCCTC  
 AGTGCCATGGAGCTGGACTCGTACCCTCTCTACGCCATCTACCTCATCGTCATTGGCCTCAGCGGTGGCT  
 TCATGGTCTGTACTACGTGTCTTAAGGTTTCATCAAACAGAAACCAAGTCAAGACTGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC220827 protein sequence  
Red=Cloning site Green=Tags(s)

MAGKAAEERGLPKGATPQHTSGLQDRLFSSSDNSLYFTYSGQPNTLEVRDLNYQVDLASQVPWFEQLAQ  
 FKMPWTSPSCQNSCELGIQNL SFKVRSGQMLAIIGSSGCGRASLLDVITGRGHGKIKSGQIWINQPS  
 PQLVRKCAVHRQHNQLLPNLTVRETLAFIAQMRLPRTFSQAQRDKRVEDVIAELRLRQCADTRVGNMYV  
 RGLSGGERRRVSIGVQLLWNPGLILDEPTSGLDSFTAHLNVKTL SRLAKGNRLVLI SLHQPRSDIFRLF  
 DLVLLMTSGTPIYLGAAQHMVQYFTAIGYPCPRYSNPADFYVDLTSIDRRSREQELATREKAQSLAALFL  
 EKVRDLDDFLWKAETKDLDEDTCVESSVPLDTNCLPSPKMPGAVQQFTTLIRRIQSNDFRDLPTLLIH  
 GAEACLSMTIGFLYFGHGSIQLSFMDTAALLFMIGALIPFNVIDVISKCYSERAMLYELEDGLYTTG  
 PYFFAKILGELPEHCAYIIYGMPTYWLANLRPLGQPFLHFLLVLVVFCRIMALAAAALLPTFHMAS  
 FFSNALYNSFYLAGGFMINLSSLWTPAWISKVSFLRWCFEGLMKIQFSRRTYKMPGLNLTIAVSGDKIL  
 SAMELDSYPLYAIYLVIGLGGFMVLYVSLRFIKQKPSQDW

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6610\\_d11.zip](https://cdn.origene.com/chromatograms/mk6610_d11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_022437

**ORF Size:** 2019 bp

**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:**

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\\_022437.3](#)

**RefSeq Size:** 2679 bp

**RefSeq ORF:** 2022 bp

**Locus ID:** 64241

**UniProt ID:** [Q9H221](#)

**Cytogenetics:** 2p21

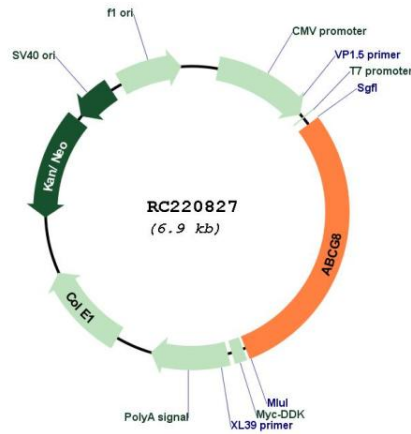
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** ABC transporters

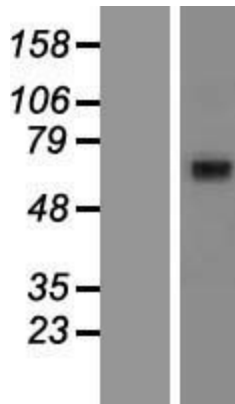
**MW:** 75.7 kDa

**Gene Summary:** The 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 White subfamily. The protein encoded by this gene functions to exclude non-cholesterol sterol entry at the intestinal level, promote excretion of cholesterol and sterols into bile, and to facilitate transport of sterols back into the intestinal lumen. It is expressed in a tissue-specific manner in the liver, intestine, and gallbladder. This gene is tandemly arrayed on chromosome 2, in a head-to-head orientation with family member ABCG5. Mutations in this gene may contribute to sterol accumulation and atherosclerosis, and have been observed in patients with sitosterolemia. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC220827



Western blot validation of overexpression lysate (Cat# [LY411701]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220827 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).