

## Product datasheet for RC221861

### ABCA1 (NM\_005502) Human Tagged ORF Clone

#### Product data:

|                           |                                                                             |
|---------------------------|-----------------------------------------------------------------------------|
| Product Type:             | Expression Plasmids                                                         |
| Product Name:             | ABCA1 (NM_005502) Human Tagged ORF Clone                                    |
| Tag:                      | Myc-DDK                                                                     |
| Symbol:                   | ABCA1                                                                       |
| Synonyms:                 | ABC-1; ABC1; CERP; HDLCQTL13; HDLDT1; HPALP1; TGD                           |
| Mammalian Cell Selection: | Neomycin                                                                    |
| Vector:                   | pCMV6-Entry (PS100001)                                                      |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                                        |
| ORF Nucleotide Sequence:  | >RC221861 representing NM_005502<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTTGTGGCCTCAGCTGAGGTTGCTGCTGTGGAAGAACCTCACTTTCAGAAGAAGACAAACATGTC  
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ACTAACCAGGCAATCCGGACCATATCTCGCTTCATGGAGTGTGTCAACCTGAACAAGCTAGAACCCATAG  
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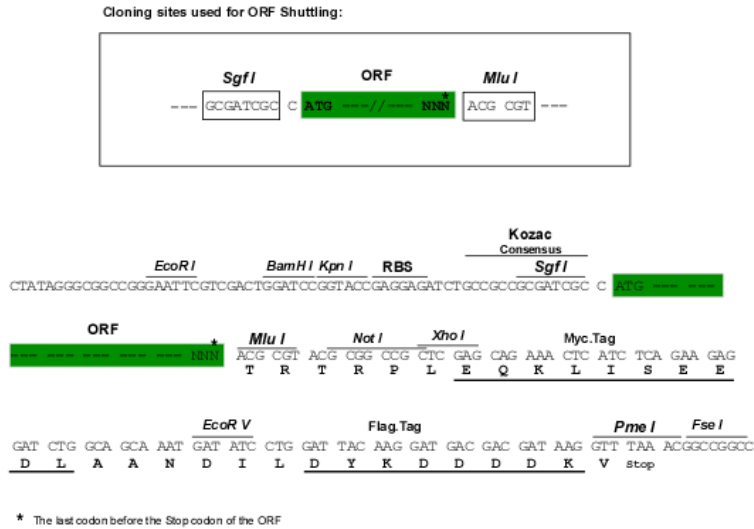
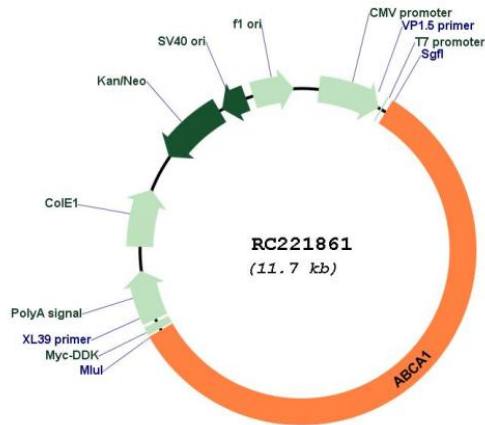
**Protein Sequence:** >RC221861 representing NM\_005502  
 Red=Cloning site Green=Tags(s)

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 VSELCGLPREKLA AEAERVLRNMDILKPIRLTLNSTSPFPKELAEATKLLHSLGTLAQELFSMRSWSD  
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 KLGLVKYGEKYAGNYS GGNKRKLSTAMALIGGPPVVF LDEPTTGMDPKARRFLWNCALSVVKEGRSVVLT  
 SHSMEECEALCTRMAIMVNGRFRCLG SVQHLKNRFGDGYTIVVRIAGSNPDLKPVQDFGLAFPGSVLKE  
 KHRNMLQYQLPSSLARIF SILSQSKRHLHIEDYSVSQTTLDQVFNFAKQSDDDHLKDL SLHKNQT  
 VVDVAVLTSFLQDEKVKESYV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8119\\_b04.zip](https://cdn.origene.com/chromatograms/mk8119_b04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

**Plasmid Map:**


ACCN: NM\_005502

ORF Size: 6783 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.

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Components:</b>            | 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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>                                                                                                                                                                                                                                                                    |
| <b>RefSeq:</b>                | <u>NM_005502.4</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>RefSeq Size:</b>           | 10515 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>RefSeq ORF:</b>            | 6786 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Locus ID:</b>              | 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID:</b>            | <u>O95477</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Cytogenetics:</b>          | 9q31.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Protein Families:</b>      | Druggable Genome, Transmembrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Pathways:</b>      | ABC transporters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>MW:</b>                    | 254.3 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Gene Summary:</b>          | <p>The membrane-associated 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 intracellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the ABC1 subfamily. Members of the ABC1 subfamily comprise the only major ABC subfamily found exclusively in multicellular eukaryotes. With cholesterol as its substrate, this protein functions as a cholesterol efflux pump in the cellular lipid removal pathway. Mutations in both alleles of this gene cause Tangier disease and familial high-density lipoprotein (HDL) deficiency. [provided by RefSeq, Sep 2019]</p> |