

## Product datasheet for **MC225368**

### **Abca12 (NM\_175210) Mouse Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Abca12 (NM_175210) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Abca12
Synonyms:	4832428G11Rik; 4833417A11Rik
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC225368 representing NM_175210 Red=Cloning site Blue=ORF Orange=Stop codon

TTTGTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGGCTTCCAGTTTCATCAGCTTCGGATCCTGGTGTGGAAAAATTGGCTAGGTGTCAAAGGCAGCCGC  
TTTGGACACTTGCTTGATCTTATGGCCAGTCATTATTTTCATAATTCTGGCTATTACCCGGACAAAATT  
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

Sgfl-MluI

**ACCN:**

NM\_175210

**Insert Size:**

7788 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

<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_175210.3, NP_780419.2</u>
<b>RefSeq Size:</b>	8323 bp
<b>RefSeq ORF:</b>	7788 bp
<b>Locus ID:</b>	74591
<b>UniProt ID:</b>	<u>E9Q876</u>
<b>Cytogenetics:</b>	1 C3
<b>Gene Summary:</b>	<p>Transports lipids such as glucosylceramides from the outer to the inner leaflet of lamellar granules (LGs) membrane, whereby the lipids are finally transported to the keratinocyte periphery via the trans-Golgi network and LGs and released to the apical surface of the granular keratinocytes to form lipid lamellae in the stratum corneum of the epidermis, which is essential for skin barrier function (PubMed:18957418, PubMed:27551807, PubMed:24293640, PubMed:20489143, PubMed:18802465). In the mean time, participates in the transport of the lamellar granules-associated proteolytic enzymes, in turns regulates desquamation and keratinocyte differentiation (PubMed:27551807, PubMed:20489143). Furthermore, is essential for the regulation of cellular cholesterol homeostasis by regulating ABCA1-dependent cholesterol efflux from macrophages through interaction with NR1H2 and ABCA1 (PubMed:18802465, PubMed:23931754). Plays pleiotropic roles in regulating glucose stimulated insulin secretion from beta cells, regulating the morphology and fusion of insulin granules, lipid raft abundance and the actin cytoskeleton (PubMed:32072744). Also involved in lung surfactant biogenesis (PubMed:18632686).[UniProtKB/Swiss-Prot Function]</p>