

## Product datasheet for **MG208310**

### **Abcd4 (BC050102) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Abcd4 (BC050102) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Abcd4
Synonyms:	P69r, P70R
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208310 representing BC050102  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACGCTCTTGTGCGTGACCCTCTGGAGCAACTGGTATCTACCAAGTTGGCTTGATCCCCAGTCAGT  
 ATTATGGAGTCTTGGAAACAAAGACCTGGATGGATTTAAGGCACTGACCTTGCTGGCCGTGACACTTAT  
 TGTCTCAACTCCACCCTGAAGAGCTTTGACCAGTTCACCTGCAACCTGCTGTACGTGAGCTGGAGGAAG  
 GACCTCACGGAGCACCTGCACCACCTGTACTTCCGGGCCCGCTGTACTACACCTCAACGTGCTGCGGG  
 ACGACATTGATAATCCGGACCAGCGAATCAGCCAGGATGTGGAGCGATTCTGCCGCAGCTCAGCAGCGT  
 GACCAGCAAGCTGATCATTTCCCTTCACTCTTACCTACTACACTTACCAGTCTTCAAAGCACAGGC  
 TGGCTCGGGCCTGTGAGCATCTTTGGATATTTACCGTGGGGACCATGGTGAACAAAACCTTTGATGGGGC  
 CCATCGTGACGAAGCTGGTGCAGCAGGAGAAGCTGGAGGGGGATTTAGTTCAAGCACATGCAGATTCCG  
 AGTGAATGCAGAGCCTGCGGCTTCTATAGAGCTGGGCTCGTCGAGCACATGAGGACAGACCCGAGGCTG  
 CAGAGACTCCTTCAGACCAGAGAGAGCTGATGTCCAGGGAGCTCTGGCTGTACATTGGTATCAACACCT  
 TTGACTATCTGGGCAGCATCCTGAGTTATGTCGTATCGCTATCCCCATTTTCAGTGGGGTCTATGGAGA  
 TTTGAGCCCCACAGAGCTTAGCACCTGGTCAGCAAGAATGCCTTGTGTGCATCTACCTCATCAGCTGC  
 TTCACCCAGCTCATTGACCTGTCCACCACACTCTCGGATGTTGCCGGTTACACACACAGGATTGGAGAGC  
 TTCAGGAGGCCCTGTGGACATGTCCGAAAATCAACAAGACTGTGAAGCCCTAGGCGAGAGTGAGTGGGA  
 CTTGGACAAAACCCAGGGTGTCCAACAACAGAGCCATCAGACACAGCTTTTCTGCTCGATCGGGTTTCC  
 ATATTGGCCCCCTCCTCTGACAAGCCCCGTGCAAGACTTGAAGCTTGAAGATCTGTGAGGGCAGAGTC  
 TGCTCATCAGGCAACACGGGCACTGGCAAGACCTCCCTGCTGCGGGTGTGGGAGGCCCTGTGGGAGGG  
 CATGAAAAGGCTCAGTGCAGATGCTGGTGATTTTGGGCCCCACGGGGTGTGTTCCCTCAGAAGCCA  
 TTCTTCACTGATGGGACACTTCCGGAGCAGGTGATATATCCCCTGAAGGAGATCTACCCTGACTCAGTT  
 CTGCGGACGATGAGAGGATTGTGAGGTTCTTGAATTGGCAGGCTGTCCAGCTTGGTGGCAAGGACTGG  
 AGGTCTGGACCAGCAGGTGGATTGGAAGTGGTATGATGTCCTGTCCCAGGGGAGATGCAAAGACTCTCC  
 TTCGCCGTCTTCTACCTGCAGCCCAAGTATGCAGTTTCACTCTGGTTCTGAGACTCCACGGAGGA  
 GGAAGCTGGGAGCTGAC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG208310 representing BC050102  
 Red=Cloning site Green=Tags(s)

MTLLCVTLLEQLVIYQVGLIPSYQYVGLGNKDLDFKALTLAVTLIVLNSTLKSFDQFTCNLLYVSWRK  
 DLTEHLHLLYFRARVYYTLNVLRDDIDNPDQRISQDVERFCRQLSSVTSKLIISPFTLYTYTYQCFQSTG  
 WLGPVSYFYFTVGTVMVNTLMGPVITKLVQKEKLEGFDFKHMQIRVNAEPAFYRAGLVEHMRTDRRL  
 QRLLQTQRELMRELWLYIGINTFDYLSILSYVVIAPVIFSGVYGDLSPTLSTLVSKNAFVCIYLIISC  
 FTQLIDLSTLSDVAGYTHRIGELQEALLDMSRKSQDCEALGESEWDLKTPGCPTEPSTAFLLDRVS  
 ILAPSSDKPLIKDLSLKICEGQSLITGNTGTGKTSLLRVLGGLWEGMKGSVQMLADFGPHGVFLFPQKP  
 FFTDGTLRQVIYPLKEIYPDSGSADDERIVRFLLEAGLSSLVARTGGLDQVDWNWYDVLSPGEMQRLS  
 FARLFYLPKYAVSLLGSETPRRRKLGAD

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** BC050102

**ORF Size:** 1559 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:** [BC050102](#), [AAH50102](#)

**RefSeq Size:** 2410 bp

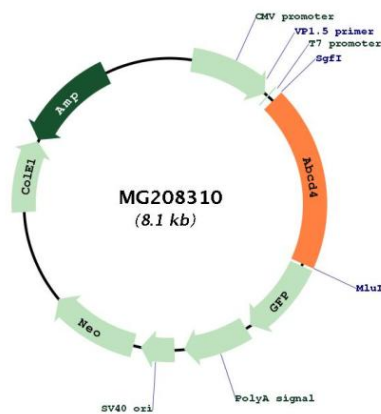
**RefSeq ORF:** 1559 bp

**Locus ID:** 19300

**Cytogenetics:** 12 39.3 cM

**Gene Summary:**

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 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 ALD subfamily, which is involved in peroxisomal import of fatty acids and/or fatty acyl-CoAs in the organelle. All known peroxisomal ABC transporters are half transporters which require a partner half transporter molecule to form a functional homodimeric or heterodimeric transporter. The function of this peroxisomal membrane protein is unknown. However, it is speculated that the human protein may function as a heterodimer for another peroxisomal ABC transporter and, therefore, may modify the adrenoleukodystrophy phenotype. It may also play a role in the process of peroxisome biogenesis. [provided by RefSeq, Jul 2008]

**Product images:**

Circular map for MG208310