

Product datasheet for **MG210402**

Abcd2 (NM_011994) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Abcd2 (NM_011994) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Abcd2
Synonyms:	A; ABC3; ABC39; AL; ALDL1; ALDR; ALDRP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG210402 representing NM_011994
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATACACATGCTAAATGCAGCAGCCTATCGGGTGAATGGACCAGATCCGGTGTCTAAAAGGGCTG
 CCTGCCTGGTGGCTGCGGCATATGCTCTGAAAACCCTCTATCCCATCATTGGCAAGCGTTTAAAGCAGCC
 TGGCCACAGGAAGGCAAAAGCAGAAGCTTACTCGCCTGCAGAGAACAGAGAAATACTGCATTGCACGGAG
 ATCATCTGTAAAAACCTGCGCCGGGACTAAATGCAGCTTTTTTCAAACAGCTACTAGAACTTCGGAAAA
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 TTTGCGAAATCAGACTTATTATAAGGTGATAAATATGGATGGGAGGCTGGCAAACCTGACCAGTCTCTT
 ACCGAAGACATTATGATGTTCTCGCAATCTGTGGCTCACCTGTATTCCAACCTTACCAAACCTATTTTAG
 ATGTCATTCTAACCTCCTATACTCTCATCCGGACAGCTACATCCAGAGGAGCAAGCCCTATAGGGCCAC
 CCTGTTAGCAGGACTTGTGCGTATGCCACTGCTAAAAGTACTGAAAGCTTGTCTGCCCAAATTTGGTTTCG
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 GTGTGGAGCAGCTGTGGACTAATTATGGTGGCTATACCCATTACTGCAACGGGCTTTGCAGATGGTG
 ATCTGGAGGATGGTCAAAGCAGGCTATGGTTAGCGATCGGACAGAGGCCCTTACCAGTCCCGGAATC
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 ACGGTTGTGGGAAAAGCTCTCTCTCAGAATCTTAAGCGGGCTGTGGCCTGTGTATGAAGGAGTCCTTTA
 TAAACCGCTCCCAACATATGTTCTATATTCCACAGAGGCCATACATGTCTCTTGAAGTCTCCGGGAT
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 ATTCGATGGCGAAGGAGGCTGGCGCTTTGAACAGTTGGACACTGCTATCCGTTTAAACGTTGAGTGAGGAA
 AAGCAAAAGTTGGAGTCGCAGCTCGCTGGAATTCCAAATGCAACAGAGACTCAACGAACCTATGCAAAA
 TTCTGGGGGAAGACTCGGTGCTGAAAACATCAAACCTCCAGAAAAGACATCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG210402 representing NM_011994
 Red=Cloning site Green=Tags(s)

MIHMLNAAAYRVKWTRSGAAKRAACLVAAYALKTLYPIIGKRLKQPGHRKAKAEAYSPAENREILHCTE
 IICKKPAPGLNAFFKQLLELRKILFPKLVTTETGWLCLHSVALISRTFLSIYVAGLDGKIVKSIVEKKP
 RTFIIKLIKWLMIAIPATFVNSAIRYLECKLALAFRTRLVDHAYETYFANQTYKVINMDGRLANPDQSL
 TEDIMMFSQSVAHLYSNLTKPILDVILTSYTLIRTATSRGASPIGPTLLAGLVVYATAKVLKACSPKFGS
 LVAAEEAHRKGYLRVHSRIIANVEEIAFYRGHKVEMKQLQKCYKALAYQMNLILSKRLWYIMIEQFLMKY
 VWSSCGLIMVAIPIITATGFADGDLEDGPKQAMVSDRTEAFTTARNLLASGADAIERIMSSYKEITELAG
 YTARVYNMFVWFDEVKRGYKRTVTQEPENHSKRGGNLELPLSDTLAIKGTVIDVDHGIICENVPITPA
 GEVVASRLNFKVEEGMHLITGPNCGKSSLFRILSGLWPVYEGVLKPPQHMFIYQRPYMSLGLSLRD
 QVIYPDSADDMREKGYTDQDLERILHSVHLHYIVQREGGWDVMDWKDVLSGGEKQRMGMARMFYHKKPKY
 ALLDECTSAVSIDVEGKIFQAAIGAGISLLSITHRPSLWKYHHTLLQFDGEGGWRFELDTAIRLTLSEE
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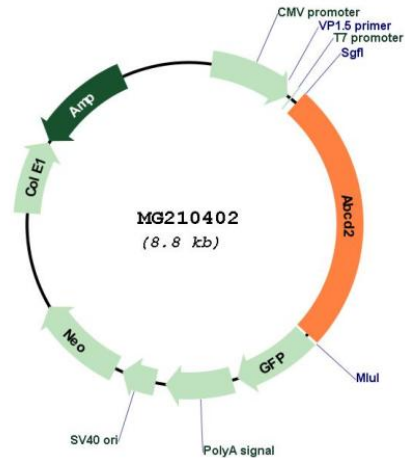
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_011994

ORF Size: 2223 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_011994.1](#)

RefSeq Size: 5540 bp

RefSeq ORF: 2226 bp

Locus ID: 26874

UniProt ID: [Q61285](#)

Cytogenetics: 15 E3

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 this protein is speculated to function as a dimerization partner of Abcd1 and/or other peroxisomal ABC transporters. Mutations in the human gene have been observed in patients with adrenoleukodystrophy, a severe demyelinating disease. This gene has been identified as a candidate for a modifier gene, accounting for the extreme variation among adrenoleukodystrophy phenotypes. This gene is also a candidate for a complement group of Zellweger syndrome, a genetically heterogeneous disorder of peroxisomal biogenesis. [provided by RefSeq, Jul 2008]