

Product datasheet for **RR201214**

Aldh3a2 (NM_031731) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aldh3a2 (NM_031731) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aldh3a2
Synonyms:	Aldh4; FALDH
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

ORF Nucleotide Sequence:

>RR201214 representing NM_031731
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCGACAGGTCCAACGACTTCGCCAGACGTTCCGGTCCGGCCGATCGCGGCCGCTGCGTTTCCGAC
 TGCAGCAGCTCGAGGCCCTCCGGAGGATGGTGCAAGAGCGAGAGAAGGACATCTTGGCAGCCATCGCAGC
 AGACCTGAGCAAAAGTGAAGTCAATGCATACAGTCATGAAGTCATTACCATCCTTGGGGAGATTGACTTC
 ATGCTGGGAATCTTCTGAATTGGCCTCTGCTCGCCAGCGAAGAAGAACCTGCTTACCATGATGGACG
 AGGCTATGTTCCAGCCAGAGCCTCTGGGAGTCGTGCTGATTATTGGAGCTTGGAACTATCCTTTTGTCT
 GACCCTGCAGCCACTGGTGGGAGCCATTGCTGCAGGAAATGCTGCCATTGTTAAGCCCTCGGAACTCAGT
 GAAAACACGGCTAAGATCTTGGCTGAACCTCCCTCAGTATTTAGACCAGGACCTGTACATGATTGTTA
 ATGGCGCGTGAAGAAACCACAGAGCTTCTGAGGCAGCGGTTTGATCACATTCTACACAGGAAACAC
 CGCAGTTGAAAAATTGTCATGGAGGCTGCTGCCAAGCACCTGACCCCTGTGACCCTGGAGCTCGGGGGC
 AAAAGCCATGCTACATTGACAGAGACTGTGACCTGGACGTTGCTTGACAGACGGATAACCTGGGGAAAGT
 ACATGAATTGTGGTCAGACCTGTATTGCTCCTGACTATATCCTGTGTGAAGCCTCCCTCCAGGATCAAAT
 CGTACAGAAGATTAAGGATACGGTGAAGGACTTTTATGGGGAAAAATGTAAGGCTTCTCCTGATTATGAA
 AGGATCATCAACCTTCGTCACCTTAAGAGGATAAAAAGTTTGCTTGAAGGACAGAAAAATAGCTTTTGGTG
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 GATGCAAGAAGAAATTTTGGACCAATTCTCCCAATAGTGTCTGTGAAAAATGTGGAGGAAGCCATAAAT
 TTCATAAATGATCGCGAAAAGCCCTGGCACTACATATTTCTCACAACAATAAGCTCATCAAACGGG
 TGATTGATGAGACATCCAGTGGTGGAGTCACAGGCAATGATGTCATGCACTTCACTGTTAATCTTT
 GCCCTTTGGAGGTGTGGGTGCCAGTGAATGGGGCTTATCATGGCAAAATACAGTTTCGATACCTTTTCT
 CATCAGCGCCCTGCTTGTAAAAGGGTTAAAGGAGAGAGTGTTAACAACCTCAGGTACCTCCCAACA
 GCGAGTCCAAGGTGAGCTGGTCGAAATCTTCTGCTGAAACAGTTCAACAAAGGAAGGCTGCAGCTGCT
 GCTTCTCGTGTGCTTGGTTCGGTTGCAGCTGTGATCGTCAAGGATCAGCTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

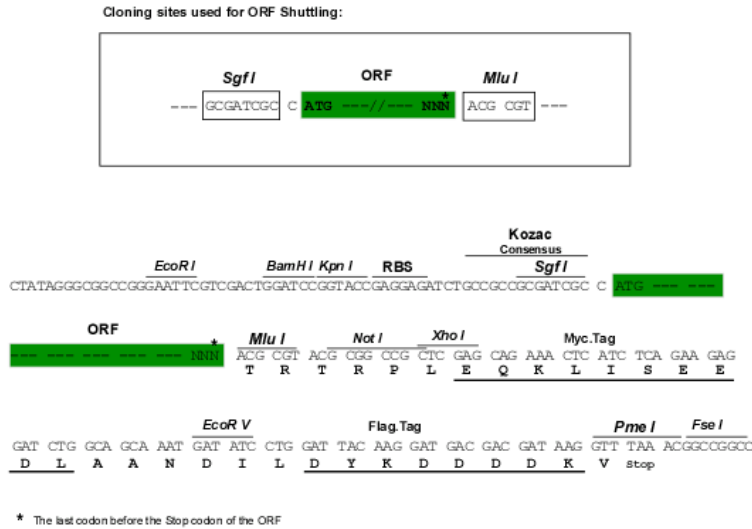
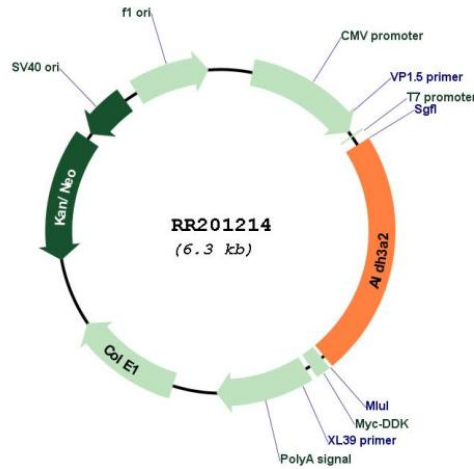
>RR201214 representing NM_031731
 Red=Cloning site Green=Tags(s)

MERQVQRLRQTFRSGRSRPLRFRLQQLEALRRMVQEREKDILAAIAADLSKSELNAYSHEVITILGEIDF
 MLGNLPELASARPAKKNLLTMMDEAYVQPEPLGVVLIIGAWNYPFVLTLPVGAIAAGNAAIVKPELS
 ENTAKILAELLPQYLDQDLYMIVNGGVEETELLRQRFDHILYTGNTAVGKIVMEAAKHLTPVTLELGG
 KSPCYIDRDCDLVACRRITWGKYMNCGQTCIAPDYILCEASLQDQIVQIKDVTKDFYGENVKASPDYE
 RIINLRHFKRIKSLLEGQKIAFGGETDEATRYIAPTILTDVDPNSKVMQEEIFGPILPIVSVKNVEEAIN
 FINDREKPLALYIFSHNNKLIKRVIDETSSGGVTGNDVIMHFTVNSLPFGGVBGASGMGAYHGKYSFDTF
 HQRPCLLKGLKGESVNKLRYPPNSESKVSWSKFFLLKQFNKGRLLQLLLVCLVAVAAVIVKDKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Plasmid Map:

ACCN:

NM_031731

ORF Size:

1452 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_031731.2](#), [NP_113919.2](#)

RefSeq Size: 2977 bp

RefSeq ORF: 1455 bp

Locus ID: 65183

UniProt ID: [P30839](#)

Cytogenetics: 10q22

MW: 54.1 kDa

Gene Summary: Catalyzes the oxidation of medium and long-chain aliphatic aldehydes to fatty acids. Active on a variety of saturated and unsaturated aliphatic aldehydes between 6 and 24 carbons in length. Responsible for conversion of the sphingosine 1-phosphate (S1P) degradation product hexadecenal to hexadecenoic acid (By similarity).[UniProtKB/Swiss-Prot Function]