

## Product datasheet for **RR213434**

### **Aldh3b1 (NM\_001006998) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Aldh3b1 (NM_001006998) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aldh3b1
Synonyms:	MGC95025
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RR213434 representing NM\_001006998  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGACTCGTTTGAAGATAAGCTTCAGCAGCTGCGAGAGGCCTTCAATGCCGGGAGGACGAGGTCAGCTG  
 AGTTCGGGCTGCACAGCTGCAAGGCCTGAGCCACTTCCTCAGAGACAACAAACAGCAGCTGCAGGAGGC  
 GCTGGCCCAAGACCTACACAAGTCAGCCTTTGAGTCGGAGGTGTCCGAGATTGCCATCAGTCAGGCTGAG  
 GTGGACCTGGCCCTCAGGAACCTGCGGTCTTGATGAAGGATGAGAAAGTGTCCAAGAATCTGGCCACAC  
 AGCTGGACTCAGCCTTATCCGGAAGGAGCCCTTCGGGCTGGTCTCATCATCGTGCCCTGGAATTACCC  
 CTTGAACCTGACACTCGTGCCTCTGGTGGGGGCCATTGCTGCAGGGAATTGTGTGGTACTCAAACCTCA  
 GAGATCAGCAAGGCCACTGAAAAGATCCTGGCTGAGGTCCTGCCCGCTATCTGGACCAGAGCTGCTTCG  
 CTGTGGTGTGGTGGGCTCAGGAACTGGGCAGCTGCTGGAACACAGGTTGACTACATCTTCTTCCAC  
 AGGGAACACTTATGTAGCAAGATCGTCATGGCTGCTGCTGCCAAACACCTGACGCCCATCACCTGGAG  
 CTGGGGGGTAAGAACCCTGCTATGTGGATGACAACTGCGACCCCGAGACAGTGGCCAACCGTGTGGCCT  
 GGTTCGCTACTTTAACGCCGGCCAGACCTGTGTGGCCCCGGATTATGTCCTGTGTAGCCAGGAGATGCA  
 GGAGCGCTGGTCCCGCCCTGCAGAATGCCATCACGCGTTTCTATGGAGACAACCCACAGACCTCCCC  
 AACCTGGGCAGAAATCAACCAGAAGCATTTCGAGCGGCTCCAGGGATTGCTGGGCTGTGGCCGTGTGG  
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 AGAGCCCGTGATGCAGGAGGAGATCTTTGGACCATCTGCCCTGGTACTGTGACGAACCTGGATGAG  
 GCAATTGAGTTCATCAACCGGAGGGAGAAGCCACTTGCCTGTACGCTTCTCTAAGAGAAGCCAGGTCA  
 TCAAACAGGTGTTGGCCCGGACCAGCAGTGGGGCTTCGCGGGAACGATGGCTTCATGCACATGACCCT  
 GTCCAGCCTTCTTTTGGAGGAGTGGGAACAGCGGGATGGGCAGGTACACGGAAGTTCTCCTTTGAC  
 ACCTTTTCCAACCAGCGTGCCTGTTTGTGCGCAGCCCTGGGATGGAGAAAATCAACGACCTGCGCTACC  
 CGCCCTACACCAGTCGCAACCTCAGGTGTTGCTGGTGGCCATGGAAAAGAGATGCTGCAGCTGCACGCT  
 GCTG

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

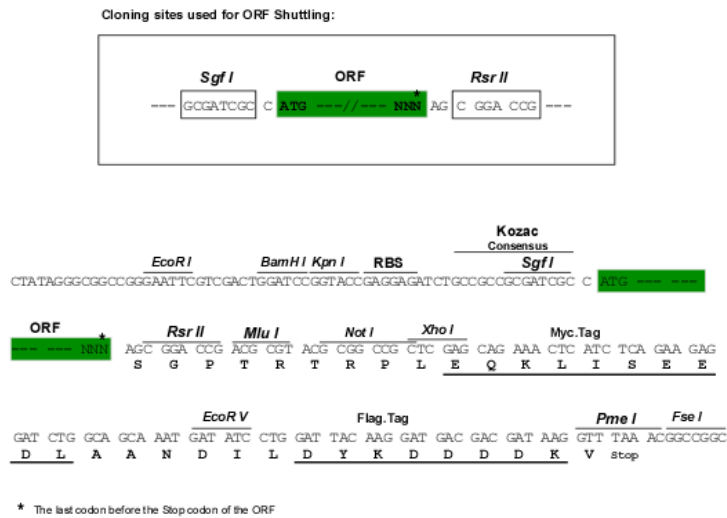
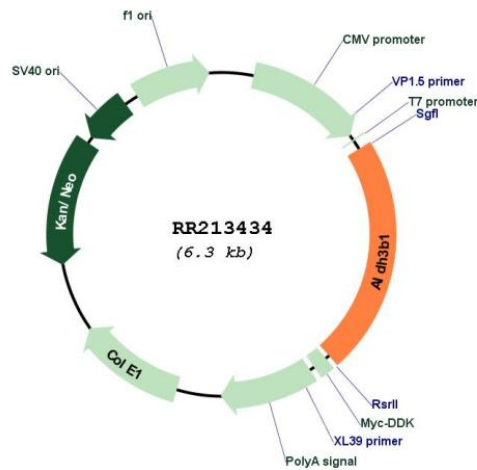
>RR213434 representing NM\_001006998  
 Red=Cloning site Green=Tags(s)

MDSFEDKLQQLREAFNAGRTRSAEFRAAQLQGLSHFLRDNKQQLQEALQDLHKSFAFESEVSEIAISQAE  
 VDLALRNLRSMKDEKVSKNLATQLDSAFIRKEPFLVLIIVPWNYPNLTLVPLVGAIAAGNCVVLKPS  
 EISKATEKILAEVLPYLDQSCFAVVLGGPQETGQLEHRFDYIFFTGNTYVVKIVMAAAKHLTPITLE  
 LGGKNPCYVDDNCDPQTVANRVAWFRYFNAGQTCVAPDYVLCSEQMERLVPALQNAITRFYGDNPQTS  
 NLGRIINQKHFERLQGLLGCGRVAIGGQSDGERYIAPTIVLDVQETEPVMQEEIFGPILPLVTVNLDE  
 AIEFINRREKPLALYAFSKRSQVIKQVLARTSSGGFCGNDGFMHMTLSSLPFGGVTSGMGRYHGKFSFD  
 TFSNQRACLLRSPGMEKINDLRYPPYTSRNLRLVLLVAMEKRCCSCTLL

SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-RsrII

**Cloning Scheme:**

**Plasmid Map:**


**ACCN:** NM\_001006998

**ORF Size:** 1404 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).

<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_001006998.1, NP_001006999.1</u>
<b>RefSeq Size:</b>	1913 bp
<b>RefSeq ORF:</b>	1407 bp
<b>Locus ID:</b>	309147
<b>UniProt ID:</b>	<u>Q5XI42</u>
<b>Cytogenetics:</b>	1q43
<b>MW:</b>	52.1 kDa
<b>Gene Summary:</b>	Oxidizes medium and long chain saturated and unsaturated aldehydes. Metabolizes also benzaldehyde. Low activity towards acetaldehyde and 3,4-dihydroxyphenylacetaldehyde. May not metabolize short chain aldehydes. Can use both NADP(+) and NAD(+) as electron acceptor. May have a protective role against the cytotoxicity induced by lipid peroxidation. [UniProtKB/Swiss-Prot Function]