

Product datasheet for **RR206011**

Aldh1a2 (NM_053896) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aldh1a2 (NM_053896) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aldh1a2
Synonyms:	Raldh-2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>RR206011 representing NM_053896
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTTCCAGCGAGATCGCCATGCCCGCGAGGTGAAGGCCACCCCGCGCTCATGGCCTCGCTGC
AGCTCCTGCCGTACCCACGCCAACCTCGAGATCAAGTACACCAAGATCTTTATTAACAATGAATGGCA
GAACTCAGAGAGTGGGAGAGTGTCCCTGTCTGTAATCCAGCCACAGGAGCAAGTGTGTGAAGTTCAA
GAAGCAGACAAGGTGGATATAGACAAGGCAGTGCAGGCGGCCCGCTGGCCTTCTCTCTTGGTTCTGTGT
GGAGAAGGATGGACGCTTCTGAAAGAGGACGTCTGCTGGACAAGCTTGCAGACTTGGTGGAACGGGACAG
GGCAACTCTTGAACATGGAATCACTAAATGGCGTAAGCCATTCCTGCAAGCTTTTTACATCGATTTG
CAGGGAGTCATCAAACCCTGAGGTATTATGCAGGCTGGGCTGATAAAATTCACGGAATGACCATTCTGT
TAGATGGAGACTATTTTACCTTACGAGACATGAGCCATCGGAGTGTGTGGACAGATTATCCCGTGGAA
TTTCCCTGCTGATGTTACCTGGAAAATGCTCCCGCACTGTCTGTGTAACACTGTGGTCATCAAG
CCTGCAGAGCAGACCACTCAGTGCACGTATATGGGAGCCCTCATCAAGGAGGCTGGCTTCCACCCG
GGTCTCAACATTCTGCCAGGGTATGGGCCAACAGCAGGGGCAGCAATAGCGTCTCACATTGGCATAGA
CAAGATTGCATTCACAGGCTCTACTGAGTTGGAAAGCTTATTCAAGAAGCAGCTGGAAGAAGTAATTTG
AAGAGAGTAACCTGGAACCTGGAGGGAAAAGCCCTAATATTATTTTGCAGATGCTGACTTGGACTACG
CTGTGGAGCAGGCTCACCAGGGTGTGTTCTTCAACCAAGGCCAGTGTGCACTGCGGGGTCTCGAATCTT
TGTGGAGGAGTCCATCTATGAGGAATTTGTGAAAAGAAGTGTGAAAGAGCCAAGAGGCGCATTGTGGG
AGCCCCTTTATCCCACTACTGAGCAGGGTCTCAGATTGATAAGAAGCAATAACAACAAATCCTGGAGC
TCATCCAGAGCGGTGTGGCCGAGGGCCCAAGCTCGAGTGTGGAGCAAAGGACTGGGAAGGAAGGGCTT
CTTCATTGAGCCTACCGTGTCTCCAACGTTACAGATGACATGCGGATCGCCAAGGAGGATCTTTGGT
CCTGTCCAGGAAATTTTGAAGTTAAGACTATGGATGAAGTTATAGAAAGAGCCAATAACTCAGACTTCG
GGCTTGTAGCGGCTGTCTTCACTAATGACATCAACAAGGCTCTCATGGTGTCTCTGCAATGCAAGCTGG
GACAGTTTGGATCAATTGTTACAACGCCTTAAATGCTCAGAGCCCTTCCGGGGGTTCAAGATGTCTGGA
AATGGGAGAGAAATGGGTGAGTTTGGCTTACGGGAGTACTCAGAAGTAAAGACCGTGACGGTGAAGATCC
CCCAGAAGAACTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR206011 representing NM_053896
Red=Cloning site Green=Tags(s)

MTSSEIAMPGEVKADPAALMASLQLLPSPTPNLEIKYTKIFINNEWQNSSEGRVFPVCPNATGEQVCEVQ
EADKVIDKAVQAARLAFSLGSVWRMDASERGRLLDKLADLVERDRATLATMESLNGGKPFLLQAFYIDL
QGVIKTLRYYAGWADKIHGMTIPVDGDYFTFTRHEPIGVCGQIIPWNFPLLMFTWKIAPALCCGNTVVIIK
PAEQTPLSALYMGALIKEAGFPPGVVNILPGYGPTAGAAIASHIGIDKIAFTGSTEVGKLIQEAAGRSNL
KRVTLELGGKSPNIIFADADLDYAVEQAHQGVFFNQGCCTAGSRIFVEESIYEEFVKRSVERAKRRIVG
SPFDPTTEQGPQIDKKQYNKILELIQSGVAEGAKLECGGKGLGRKGFFIEPTVFSNVTDMMRIAKEEIFG
PVQEILRFKTMDEVIERANNSDFGLVAAVFTNDINKALMVSSAMQAGTVWINCYNALNAQSPFGGFKMSG
NGREMGEFGLREYSEVKTVTVKIPQKNS

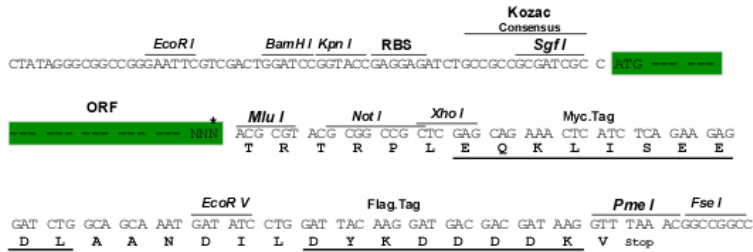
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

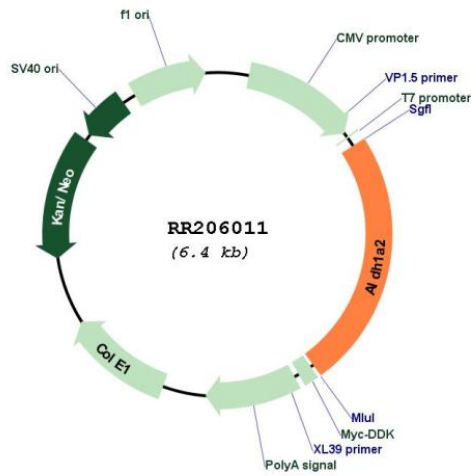
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:	NM_053896
ORF Size:	1554 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:	<ol style="list-style-type: none">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_053896.2 , NP_446348.2
RefSeq Size:	2254 bp
RefSeq ORF:	1557 bp
Locus ID:	116676
UniProt ID:	Q63639
Cytogenetics:	8q24
MW:	56.6 kDa
Gene Summary:	enzyme necessary for the production of retinoic acid; may be associated with congenital diaphragmatic hernia [RGD, Feb 2006]