

Product datasheet for **RC238016**

ALDH1A3 (NM_001293815) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: ALDH1A3 (NM_001293815) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: ALDH1A3
Synonyms: ALDH1A6; ALDH6; MCOP8; RALDH3
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC238016 representing NM_001293815
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCACCGCTAACGGGGCCGTGGAAAACGGGCAGCCGGACAGGAAGCCCGGCCCTGCCGCGCCCA
TCCGCAACCTGGAGGTCAAGTTCACCAAGATATTTATCAACAATGAATGGCACGAATCCAAGAGTGGAA
AAAGTTTGTACATGTAACCTTCAACTCGGGAGCAAATATGTGAAGTGAAGAAGGAGATAAGCCCGAC
GTGGACAAGGCTGTGGAGGCTGCACAGGTTGCCTTCCAGAGGGGCTCGCCATGGCCCGGCTGGATGCC
TGAGTCGTGGGGCGCTGCTGCACCAGCTGGCTGACCTGGTGGAGAGGGACCGCGCCACCTTGGCCCGCG
GTTCCCTCCAGGAGTGGTGAACATTGTGCCAGGATTCGGGCCACAGTGGGAGCAGCAATTTCTTCTCAC
CCTCAGATCAACAAGATCGCCTTACCAGGCTCCACAGAGGTTGGAAAACCTGGTTAAAGAAGCTGCGTCCC
GGAGCAATCTGAAGCGGGTACGCTGGAGCTGGGGGGGAAGAACCCTGCATCGTGTGTGCGGACGCTGA
CTTGACTTGGCAGTGGAGTGTGCCATCAGGGAGTGTCTTCAACCAAGGCCAGTGTGCACGGCAGCC
TCCAGGGTGTTCGTGGAGGAGCAGGTCTACTCTGAGTTTGTGAGCGGAGCGTGGAGTATGCCAAGAAAC
GGCCCGTGGGAGACCCCTTCGATGTCAAACAGAACAGGGGCCCTCAGATTGATCAAAGCAGTTCGACAA
AATCTTAGAGCTGATCGAGAGTGGGAAGAAGGAAGGGGCCAAGCTGGAATGCGGGGGCTCAGCCATGGAA
GACAAGGGGCTTTCATCAAACCACTGTCTTCTCAGAAGTCACAGACAACATGCGGATTGCCAAAGAGG
AGATTTTCGGGCCAGTGCACCAATACTGAAGTTCAAAAGTATCGAAGAAGTGATAAAAAGAGCGAATAG
CACCGACTATGGACTCACAGCAGCCGTGTTACAAAAAATCTCGACAAAGCCCTGAAGTTGGCTTCTGCC
TTAGAGTCTGGAACGGTCTGGATCAACTGCTACAACGCCCTCTATGCACAGGCTCCATTTGGTGGCTTTA
AAATGTCAGGAAATGGCAGAGAACTAGGTGAATACGCTTTGGCCGAATACACAGAAGTAAAACCTGCAC
CATCAAACCTGGCGACAAGAACCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC238016 representing NM_001293815
 Red=Cloning site Green=Tags(s)

MATANGAVENGQPDRKPPALPRPIRNLEVKFTKIFINNEWHESKSGKKFATCNPSTREQICEVEEGDKPD
 VDKAVEAAQVAFQRGSPWRRDLALSRGRLLHQLADLVERDRATLAAGFPPGVVNI VPGFGPTVGAATSSH
 PQINKIAFTGSTEVGKLVKEAASRSNLKRVTLELGGKNPCIVCADADLDLAVECAHQGVFFNQGQCCTAA
 SRVVEEQVYSEFVRRSVEYAKKRPVGDVDFVTEQGPQIDQKQFDKILELIESGKKEGAKLECGGSAME
 DKGLFIKPTVFSEVTDNMRIAKEEIFGPVQPIPKFKSIEEVIKCRANSTDYGLTAAVFTKNLDKALKLASA
 LESGTVWINCYNALYAQAPFGGFKMSGNGRELGEYALAEYTEVKTVTIKLGDKNP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

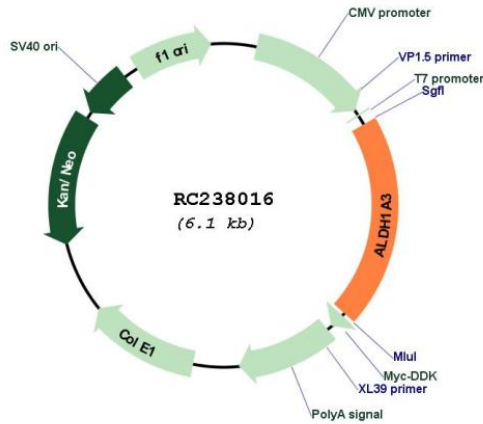
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001293815

ORF Size:	1215 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_001293815.2
RefSeq Size:	3301 bp
RefSeq ORF:	1218 bp
Locus ID:	220
UniProt ID:	P47895
Cytogenetics:	15q26.3
Protein Families:	Druggable Genome
Protein Pathways:	Drug metabolism - cytochrome P450, Glycolysis / Gluconeogenesis, Histidine metabolism, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Phenylalanine metabolism, Tyrosine metabolism
MW:	44.7 kDa
Gene Summary:	This gene encodes an aldehyde dehydrogenase enzyme that uses retinal as a substrate. Mutations in this gene have been associated with microphthalmia, isolated 8, and expression changes have also been detected in tumor cells. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2014]