

## Product datasheet for **RG238016**

### ALDH1A3 (NM\_001293815) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH1A3 (NM_001293815) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ALDH1A3
Synonyms:	ALDH1A6; ALDH6; MCOP8; RALDH3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238016 representing NM_001293815. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCCACCGCTAACGGGGCCGTGGAAAACGGGCAGCCGGACAGGAAGCCGCCGGCCCTGCCGCGCCCC
ATCCGCAACCTGGAGGTCAAGTTCACCAAGATATTTATCAACAATGAATGGCAGCAATCCAAGAGTGGG
AAAAAGTTTGCTACATGTAACCCCTCAACTCGGGAGCAAATATGTGAAGTGAAGAAGGAGATAAGCCC
GACGTGGACAAGGCTGTGGAGGCTGCACAGTTGCCTCCAGAGGGGCTCGCCATGGCGCCGCTGGAT
GCCCTGAGTCGTGGCGGCTGCTGCACCAGCTGGCTGACCTGGTGGAGAGGGACCGCCACCTTGCC
GCCGGTTCCTCCAGGAGTGGTGAACATTGTGCCAGGATTCGGGCCACAGTGGGAGCAGCAATTTCT
TCTCACCTCAGATCAACAAGATCGCCTTCACCGCTCCACAGAGTTGGAAAACCTGGTTAAAGAAGCT
GCGTCCCAGGCAATCTGAAGCGGTGACGCTGGAGCTGGGGGGGAAGAACCCCTGCATCGTGTGTGCG
GACGCTGACTTGGACTTGGCAGTGGAGTGTGCCATCAGGGAGTGTCTTCAACCAAGGCCAGTGTTC
ACGGCAGCCTCCAGGGTGTTCGTGGAGGAGCAGGTCTACTCTGAGTTTGTGAGCGGAGCGTGGAGTAT
GCCAAGAAACGGCCCGTGGGAGACCCCTTCGATGTCAAACAGAACAGGGGCCCTCAGATTGATCAAAG
CAGTTCGACAAAATCTTAGAGCTGATCGAGAGTGGGAAGAAGGAAGGGCCCAAGCTGGAATGCGGGGGC
TCAGCCATGGAAGACAAGGGCTCTTCATCAAACCCACTGTCTTCTCAGAAGTACAGACAACATGCGG
ATTGCCAAGAGGAGATTTTCGGGCCAGTCAACCAACTGAAGTTCAAAGTATCGAAGAAGTGATA
AAAAGAGCGAATAGCACCAGCTATGGACTCACAGCAGCCGTGTTCAAAAAAATCTGACAAAGCCCTG
AAGTTGGCTTCTGCCTTAGAGTCTGGAACGGTCTGGATCAACTGCTACAACGCCCTCTATGCACAGGCT
CCATTTGGTGGCTTTAAATGTCAGGAAATGGCAGAGAACTAGGTGAATACGCTTTGGCCGAATACACA
GAAGTGAAAACCTGTACCATCAAACCTGGCGACAAGAACCCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238016  
 Blue=ORF Red=Cloning site Green=Tag(s)

MATANGAVENGQPDRKPPALPRPIRNLEVKFTKIFINNEWHESKSGKKFATCNPSTREQICEVEEGDKP  
 DVDKAVEAAQVAFQRGSPWRRLDALSRGRLLHQLADLVERDRATLAAGFPPGVVNI VPGFGPTVGA AIS  
 SHPQINKIAFTGSTEVGKLVKEAASRSNLKRVTLLEGGKNPCIVCADADLDLAVECAHQGVFFNQGCC  
 TAASRVFVEEQVYSEFVRRSVEYAKKRPVGDVFKTEQGPQIDQKQFDKILELIESGKKEGAKLECGG  
 SAMEDKGLFIKPTVFSEVTDNMRIAKEEIFGPVQPILKFKSIEEVIK RANSTDYGLTAAVFTKNLDKAL  
 KLASALESGTVWINCYNALYAQAPFGGFKMSGNGRELGEYALAEYTEVKTVTIKLGDKNP  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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).

**RefSeq:** [NM\\_001293815.2](#)

**RefSeq Size:** 3301 bp

RefSeq ORF: 1218 bp  
 Locus ID: 220  
 UniProt ID: [P47895](#)

Cytogenetics: 15q26.3

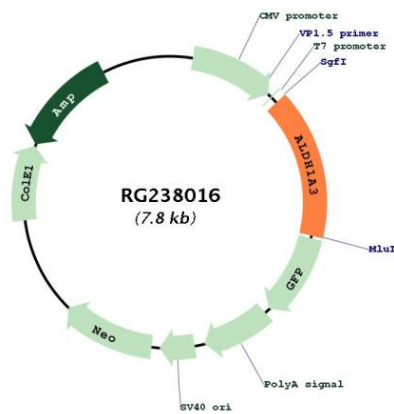
Protein Families: Druggable Genome

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]

### Product images:



Circular map for RG238016