

Product datasheet for **RG216863**

ALDH8A1 (NM_170771) Human Tagged ORF Clone

Product data:

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|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ALDH8A1 (NM_170771) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | ALDH8A1 |
| Synonyms: | ALDH12; DJ352A20.2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG216863 representing NM_170771 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGGAACAAACGCACCTTTTGATGCTGGAAAACCTTCATAGATGGAAAATTTTACCTTGTAGCTCAT
ATATAGATTCTTACGACCCATCAACAGGGGAAGTGTATTGCAGAGTGCCAAATAGTGAAAAGACGAGAT
CGAAGCCCGGTCAAGGCCGCCAGAGAAGCCTTCCCAGCTGGTCATCCCGCAGCCCCAGGAGCGCTCA
CGGTCTGAACAGGTGGCGGATTTGCTGGAGCAGTCCCTGGAGGATTTGCCAGGCCGAGTCTAAAG
ACCAAGGGAAAACCTTAGCACTGGCAAGAACCATGGACATTCCCCGGTCTGTGCAGAACTCAGGTTCTT
CGCTTCCAGCCTGCACCACACGTCAGAGTGCACGCAGATGGACCACCTGGGCTGCATGCACTACAGG
GTGCGGGCCCCGGTGGGAGTCGCTGGTCTGATCAGCCCCGGAATTTGCCACTCTACTTGTGACCTGGA
AGATAGCTCCAGCGATGGCTGCAGGGAACACTGTGATAGCCAAGCCCAGTGAGCTGACTTCAGTGACTGC
GTGGATGTTGTGCAAACTCCTGGATAAAGCAGGTGTTCCACCAGGTGTGGTCAATATTGTGTTTGAAC
GGGCCAGGGTGGGTGAGGCCCTGGTGTCCCACCAGAGGTGCCCTGATCTCCTCACCGGAGCCAGC
CCACCGCTGAGCGGATCACCCAGCTGAGCGCTCCCACCTGCAAAAAGCTCCTCCTGGAGCTGGGGGGCAA
GAATCCTGCCATCATCTTTGAGGACGCCAACCTGGATGAGTGCATTCCGGCAACCGTCAGTCCAGCTTT
GCCAACCAAGTCAAGAATTACGTCAAGAGAGCTTTGCTGAAGGTGCCAAATTTGGTGGGTGAGGGAG
TGGATAAGTTGAGCCTCCTGCCAGGAACCAGGCAAGGCTACTTTATGCTTCCACGGTGATAACAGACAT
TAAGGATGAATCCTGCTGCATGACGGAAGAGATATTTGGTCCAGTGACGTGTGTCGTCCTTTGATAGT
GAAGAGGAGGTGATTGAAAGAGCCAACAACGTTAAGTATGGGCTGGCGGTACCCTGTGGTCCAGCAATG
TGGGGCGCTCCACCGGTGGCTAAGAAGCTGCAGTCTGGCTGGTCTGGACCAACTGCTGGCTCATCAG
GGAGCTGAACCTTCTTTGGGGGGATGAAGAGTCTGGAATAGGTAGAGAGGGGCAAGGACTCTTAC
GACTTCTCACTGAGATCAAACCATCACCGTTAAACAC

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG216863 representing NM_170771
 Red=Cloning site Green=Tags(s)

MAGTNALLMLENFIDGKFLPCSSYIDSYPSTGEVYCRVPNSGKDEIEAAVKAAREAFPSWSSRSPQERS
 RVLNQVADLLEQSLLEFAQAESKDQKTLALARTMDIPRSVQNFRRFASSSLHHTSECTQMDHLGCMHYT
 VRAPVGVAGLISPWNPLPYLLTWKIAPAMAAGNTVIKPSELTSVTAWMLCKLLDKAGVPPGVVNI VFGT
 GPRVGEALVSHPEVPLISFTGSQPTAERITQLSAPHCKKLSLELGKKNPAIIFEDANLDECIPATVRSSF
 ANQVRSYVKRALAEGAQIWCGEVVDKLSLPARNQAGYFMLPTVITDIKDESCCMTEEIFGPVTCVVPFDS
 EEEVIERANNVYGLAATVWSSNVGRVHRVAKKLQSGLVWTNCWLIRELNL PFGGMKSSGIGREGAKDSY
 DFFTEIKTITVKH

TRTRPLE – GFP Tag – V

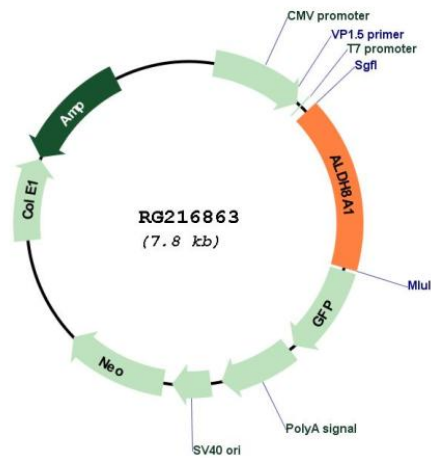
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:

NM_170771

| | |
|-------------------------------|---|
| ORF Size: | 1299 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_170771.3 |
| RefSeq Size: | 2387 bp |
| RefSeq ORF: | 1302 bp |
| Locus ID: | 64577 |
| UniProt ID: | Q9H2A2 |
| Cytogenetics: | 6q23.3 |
| Protein Families: | Druggable Genome |
| Gene Summary: | This gene encodes a member of the aldehyde dehydrogenase family of proteins. The encoded protein has been implicated in the synthesis of 9-cis-retinoic acid and in the breakdown of the amino acid tryptophan. This enzyme converts 9-cis-retinal into the retinoid X receptor ligand 9-cis-retinoic acid, and has approximately 40-fold higher activity with 9-cis-retinal than with all-trans-retinal. In addition, this enzyme has been shown to catalyze the conversion of 2-aminomuconic semialdehyde to 2-aminomuconate in the kynurenine pathway of tryptophan catabolism. [provided by RefSeq, Jul 2018] |