

Product datasheet for **RG202372**

ALDH16A1 (NM_153329) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH16A1 (NM_153329) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ALDH16A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG202372 representing NM_153329
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGCGACGCGTGCAGGGCCCCGCGCCCGAGATCTTCACCTCGCTGGAGTACGGACCGGTGCCGG
 AGAGCCACGCATGCGCACTGGCCTGGCTGGACACCAGGACCGGTGCTTGGGCCACTATGTGAATGGGAA
 GTGGTTAAAGCCTGAACACAGAAATTCAGTGCCTTGCCAGGATCCCATCACAGGAGAGAAGTTGGCCAGT
 TGCTGACAGGCACAGGCCGAGGATGTGGCTGCAGCCGTGGAGGCAGCCAGGATGGCATTAAAGGGCTGGA
 GTGCGCACCCCGCGTCTCCGGGCCAGCACCTGACCAGGCTGGCCGAGGTGATCCAGAAGCACCAGCG
 GCTGCTGTGGACCCTGGAATCCCTGGTACTGGCGGGCTGTTTCGAGAGGTTTCGAGACGGGGACGTCCAG
 CTGGCCCAGCAGTCTCACTACCATGCAATCCAGGCATCCACCAGGAGGAGGCACTGGCAGGCTGGG
 AGCCCATGGGAGTAATTGGCCTCATCTGCCACCACATTCCTCCTTCCTTGAGATGATGTGGAGGATTTG
 CCCTGCCCTGGCTGTGGCTGCACCGTGGTGGCCCTCGTCCCCCGGCCCTCCCGGCGCCCTCCTCCTG
 GCCCAGCTGGCGGGGAGCTGGGCCCTTCCCGGAATCCTGAATGTCTGTCAGTGGCCCTGCGTCCCTGG
 TGCCCATCCTGGCCTCCAGCCTGGAATCCGGAAGGTGGCCTTCTGCGGAGCCCCGGAGGAAGGGCGTGC
 CCTTCGACGGAGCCTGGCGGGTGAAGTGTGCGGAGCTGGCCCTGGCGCTGGGGACGGAGTCCGTGCTGCTG
 CTGACGGACACGGCGGACGTAGACTCGGCCGTGGAGGGTGTCTGGAGCGCCGCTGGTCCGACCGCGGCC
 CGGGTGGCCTCAGGCTCCTCATCCAGGAGTCTGTGTGGGATGAAGCCATGAGACGGCTGCAGGAGCGGAT
 GGGGCGGCTTCGAGTGGCCGAGGGCTGGATGGGGCCGTGGACATGGGGGCCGGGGGCTGCCCATGT
 GACCTGGTCCAGCGCTTGTGCGTGAAGCCAGAGCCAGGCTGCACAGGTGTTCCAGGCTGGTGTGCTGC
 CTTGGAACGCCATTCTATCCCCAACCTTGGTCTCAAACCTGCCCCAGCCTCCCATGTGCCAGTGT
 GGAGGTGCCGTGGCCTGTGGTCTGTGGCCTCCCCCTTCCGACAGCCAAGGAGGCACTGTTGGTGGCCAAC
 GGGACGCCCGCGGGGGCAGCGCAAGTGTGTGGAGCGAGAGGCTGGGGCAGGCGCTGGAGCTGGGCTATG
 GGCTCAAAGTGGGCACTGTCTGGATCAACGCCCACGGCCTCAGAGACCCTTCGGTCCCCACAGGCGGCTG
 CAAGGAGAGTGGGTGTTCTGGCACGGGGGCCAGACGGGCTGTATGAGTATCTGCGGCCCTCAGGGACC
 CCTGCCCGGCTGTCTGCCTCTCCAAGAACCTGAACTATGACACCTTTGGCCTCGCTGTTCCCTCAACCC
 TGCCGGCTGGGCTGAAATAGGGCCAGCCAGCACCCCTATGGGCTTTCGTGGGGCCGTTTCCA
 GGCTCCTGGGGCCGAAGCTCCAGGCCATCCGGGATTCGTCTGGCAACCTCCATGGCTACGTGGCTGAG
 GGTGGAGCCAAGGACATCCGAGGTGCTGTGGAGGCGCTCACCAGGCTTTCCTGGCTGGGCGGGCCAGT
 CCCAGGAGCCCGGCAGCCCTGCTGTGGGCCCTGGCGGCTGCACTGGAGCGCCGGAAGTACCCCTGGC
 CTCGAGGCTGGAGAGGCAGGGAGCGGAGCTCAAGGCTGCGGAGGCGGAGGTGGAGCTGAGCGCAAGACGA
 CTTCCGGCGTGGGGGGCCGGGTGCAGGCCAAGGCCACACCCTGCAGGTAGCCGGGCTGAGAGGCCCTG
 TGCTGCGCCTGCGGGAGCCGCTGGGTGTGCTGGCTGTGGTGTGTCGGACGAGTGGCCCTGCTTGCCTT
 CGTGTCCCTGTGGCTCCCGCCTGGCCTACGGCAACACTGTGGTTCATGGTGCAGTGGCGCCTGTCTCT
 CTGCTGGCCCTGGAGGTCTGCCAGGACATGGCCACCCTGTCCAGCAGGCTGGCAACGTGGTGTGACAG
 GAGACCGGGACCATCTGACCCGCTGCCTGGCCTGCACCAAGACGTCCAGGCCATGTGGTATTTCCGATC
 AGCCCAGGGTTCCAGTTTGTGAGTGGCCCTCGGCAGGAAACCTCAAACCGGTGGGGGAGCAGGGGC
 TGCCCGCGGGCCTGGGACAGGAGGCGGAGGGCCAGGCCAGAGCTGGGGCTGCCAGTGGCGCGGACCA
 AGGCCCTGTGGCTGCCTATGGGGAC

AC**CGGCCGCT**CGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202372 representing NM_153329
 Red=Cloning site Green=Tags(s)

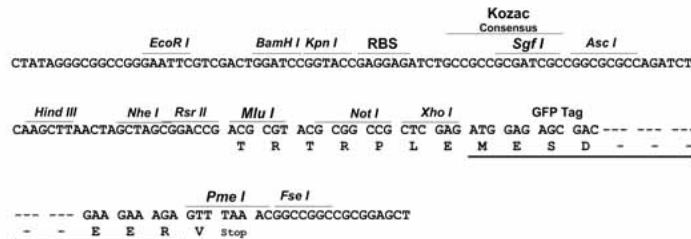
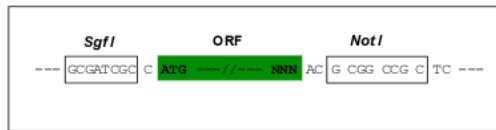
MAATRAGPRAREIFTSLEYGPVPESHACALAWLDTQDRCLGHYVNGKWLKPEHRNSVPCQDPITGENLAS
 CLQAQAEDVAAAVEAARMAFKGWSAHPGVVRAQHLTRLAEVIQKHQRLLWTLESLVTGRAVREVRDGDVQ
 LAQQLLHYHAIQASTQEEALAGWEPMGVIGLILPPTFSFLEMMWRICPALAVGCTVVALVPPASPAPLLL
 AQLAGELGPFPGILNVVSGPASLVPILASQPGRKVAFCGAPEEGRALRRSLAGECAELGLALGTESLLL
 LTDADVDSAVEGVVDAAWSDRGPGGLRLLIQESVWDEAMRRLQERMGRRLRSGRGLDGAVDMGARGAAAC
 DLVQRFVREAQSQAQVFQAGDVPSEPFYPTLVSNLPPASPCAQVEVPWPVVVASFRTAKEALLVAN
 GTPRGGASVWSERLGQALELGYGLQVGTVWINAHGLRDPVPTGGCKESGCSSWHGGPDGLYEYLRPSGT
 PARLSCLSKNLNYDTFGLAVPSTLPAGPEIGPSPAPPYGLFVGGRFQAPGARSSRPIRDSSGNLHGYYAE
 GGAKDIRGAVEAAHQAFPGWAGQSPGARAALLWALAAALERRKSTLASRLERQGAELKAAEALEVELSARR
 LRAWGARVQAQGHLLQVAGLRGPVLRLEPLGVLAVVCPDEWPLLAFLVSLAPALAYGNTVVMVPSAACPL
 LLALEVCQDMATVFPAGLANVVTGDRDHLTRCLALHQDVQAMWYFGSAQGSQFVEWASAGNLKPVWASRG
 CPRAWDQEAEGAPPELGLRVARTKALWLPMD

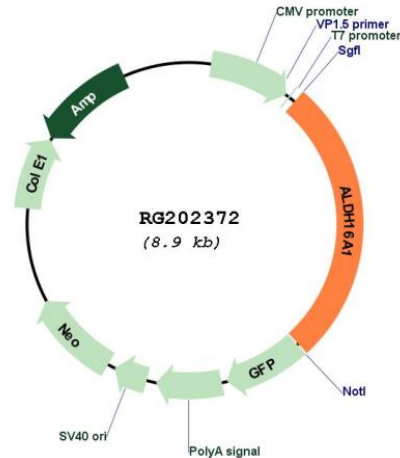
TRPLE - GFP Tag - V

Restriction Sites: SgfI-NotI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_153329

ORF Size: 2406 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:

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_153329.2](#), [NP_699160.1](#)

RefSeq Size: 2627 bp

RefSeq ORF: 2409 bp

Locus ID: 126133

UniProt ID: [Q8IZ83](#)

Cytogenetics: 19q13.33

Domains: aldedh

Protein Families: Druggable Genome

Gene Summary: This gene encodes a member of the aldehyde dehydrogenase superfamily. The family members act on aldehyde substrates and use nicotinamide adenine dinucleotide phosphate (NADP) as a cofactor. This gene is conserved in chimpanzee, dog, cow, mouse, rat, and zebrafish. The protein encoded by this gene interacts with maspardin, a protein that when truncated is responsible for Mast syndrome. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2010]