

## Product datasheet for **RC202372**

### **ALDH16A1 (NM\_153329) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ALDH16A1 (NM_153329) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ALDH16A1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC202372 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCTGCGACGCGTGCAGGGCCCCGCGCCCGAGATCTTACCTCGCTGGAGTACGGACCGGTGCCGG  
AGAGCCACGCATGCGCACTGGCCTGGCTGGACACCCAGGACCGGTGCTTGGGCCACTATGTGAATGGGAA  
GTGGTTAAAGCCTGAACACAGAAATTCAGTGCCTTGCCAGGATCCCATCACAGGAGAGAAGTTGGCCAGT  
TGCTGACAGGCACAGGCCGAGGATGTGGCTGCAGCCGTGGAGGCAGCCAGGATGGCATTAAAGGGCTGGA  
GTGCGCACCCCGCGTCTGCCGGGCCAGCACCTGACCAGGCTGGCCGAGGTGATCCAGAAGCACCAGCG  
GCTGCTGTGGACCCTGGAATCCCTGGTACTGGCGGGCTGTTGAGAGGTTGAGACGGGGACGTCCAG  
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AGCCCATGGGAGTAATTGGCCTCATCTGCCACCACATTCCTTCTTCTGAGATGATGTGGAGGATTTG  
CCCTGCCCTGGCTGTGGCTGCACCGTGGTGGCCCTCGTCCCCCGGCCCTCCCGGCCCCCTCCTCCTG  
GCCAGCTGGCGGGGAGCTGGGCCCTTCCCGGAATCCTGAATGTCTGTCAGTGGCCCTGCGTCCCTGG  
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CCTTCGACGGAGCCTGGCGGGTGAAGTGTGCGGAGCTGGCCCTGGCGCTGGGGACGGAGTCCGTGCTGCTG  
CTGACGGACACGGCGGACGTAGACTCGGCCGTGGAGGGTGTCTGGAGCGCCGCTGGTCCGACCGCGGCC  
CGGGTGGCCTCAGGCTCCTCATCCAGGAGTCTGTGTGGGATGAAGCCATGAGACGGCTGCAGGAGCGGAT  
GGGGCGGCTTCGAGTGGCCGAGGGCTGGATGGGGCCGTGGACATGGGGGCCGGGGGCTGCCCATGT  
GACCTGGTCCAGCGCTTGTGCGTGAGGCCAGAGCCAGGCTGCACAGGTGTTCCAGGCTGGTGTGCTGC  
CTTCGGAAACCCATTCTATCCCCAACCTTGGTCTCAAACCTGCCCCAGCCTCCCATGTGCCAGTGC  
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GGGACGCCCGCGGGGGCAGCGCAAGTGTGTGGAGCGAGAGGCTGGGGCAGGCGCTGGAGCTGGGCTATG  
GGCTCAAAGTGGGCACTGTCTGGATCAACGCCCCAGGCCCTCAGAGACCCTTCGGTCCCCACAGGCGGCTG  
CAAGGAGAGTGGGTGTTCTGGCACGGGGGCCAGACGGGCTGTATGAGTATCTGCGGCCCTCAGGGACC  
CCTGCCCGGCTGTCTGCCTCTCCAAGAACCTGAACTATGACACCTTTGGCCTCGCTGTTCCCTCAACCC  
TGCCGGCTGGGCCTGAAATAGGGCCCAGCCAGCACCCCTATGGGCTTCTGTTGGGGCCGTTTCCA  
GGCTCCTGGGGCCGAAGCTCCAGGCCATCCGGGATTCGTCTGGCAACCTCCATGGCTACGTGGCTGAG  
GGTGGAGCCAAGGACATCCGAGGTGCTGTGGAGGCGCTCACCAGGCTTCCCTGGCTGGCGGGCCAGT  
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CTCGAGGCTGGAGAGGCAGGGAGCGGAGCTCAAGGCTGCGGAGGCGGAGGTGGAGCTGAGCGCAAGACGA  
CTTCGGGCGTGGGGGGCCCGGGTGCAGGCCAAGGCCACACCCTGCAGGTAGCCGGGCTGAGAGGCCCTG  
TGCTGCGCCTGCGGGAGCCGCTGGGTGTGCTGGCTGTGGTGTGTCGGACGAGTGGCCCTGCTTGCCTT  
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GAGACCGGGACCATCTGACCCGCTGCCTGGCCTGCACCAAGACGTCCAGGCCATGTGGTATTTCCGATC  
AGCCCAGGGTTCCAGTTTGTGAGTGGCCTCGGCAGGAAACCTCAAACCGGTGTGGCGAGCAGGGGC  
TGCCCGCGGGCCTGGGACCAGGAGGCCGAGGGGCAGGCCAGAGCTGGGGCTGCCAGTGGCGCGGACCA  
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**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGA**  
**TTACAAGGATGACGACGATAAGGTTTAA**

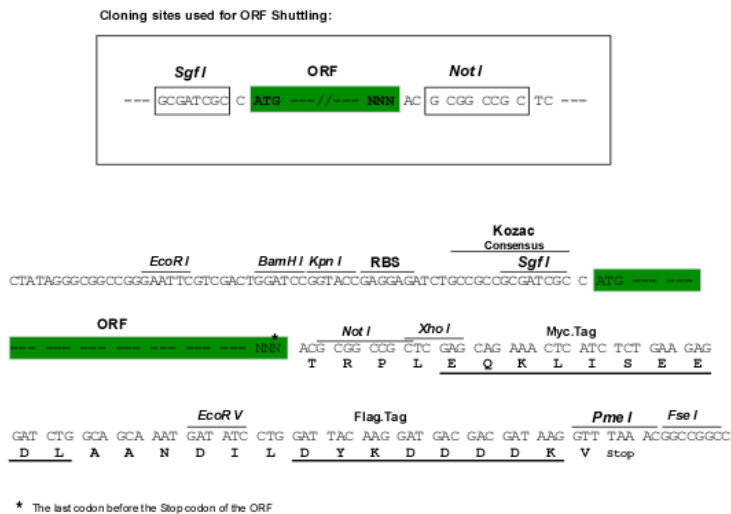
**Protein Sequence:** >RC202372 protein sequence  
Red=Cloning site Green=Tags(s)

MAATRAGPRAREIFTSLEYGVPESHACALAWLDTQDRCLGHYVNGKWLKPEHRNSVPCQDPITGENLAS  
CLQAQAE DVAAA VEARM AFKGS AHPGVVRAQH LTR LAEVI QKHQRLL WTLES LVTGRAVREVRDGDVQ  
LAQQLLHYHAIQASTQEEALAGWEPMGVIGLILPPTFSFLEMMWRICPALAVGCTVVALVPPASPAPLLL  
AQLAGELGPFPGILNVVSGPASLVPIIASQPGIRKVAFCGAPEEGRALRRSLAGECAELGLALGTESLLL  
LTDADVDSAVEGVVDAAWSDRGPGGLRLLIQESVWDEAMRRLQERMGR LRSRGLDGAVDMGARGAAAC  
DLVQRFVREAQSQGAQVFQAGDVPSEPFYPTLVSNLPPASPCAQVEVPWPVVVASFRTAKEALLVAN  
GTPRGGSASVWSERLGQALELGYGLQVGTVWINAHGLRDP SVPTGGCKESGCSWHGGPDGLYEYLRPSGT  
PARLSCLSKNLNYDTFGLAVPSTLPAGPEIGPSPAPPYGLFVGGRFQAPGARSSRPIRDSSGNLHGYYAE  
GGAKDIRGAVEAAHQAFPGWAGQSPGARAALLWALAAALERRKSTLASRLERQGAELKAAEA EVELSARR  
LRAWGARVQAQGH TLQVAGLRGPVLR LREPLGVLAVVCPDEWPLLA FVSLLAPALAYGNTVVMVPSAACP  
LLALEVCQDMATVFPAGLANVVTGDRDHLTRCLALHQDVQAMWYFGSAQGSQFVEWASAGNLKPVWASRG  
CPRAWQEAEGAGPELGLRVARTKALWLPMD

TRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6798\\_b07.zip](https://cdn.origene.com/chromatograms/mk6798_b07.zip)

**Restriction Sites:** Sgfl-NotI

**Cloning Scheme:**


**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:** 3119 bp

**RefSeq ORF:** 2409 bp

**Locus ID:** 126133

**UniProt ID:** [Q8IZ83](#)

**Cytogenetics:** 19q13.33

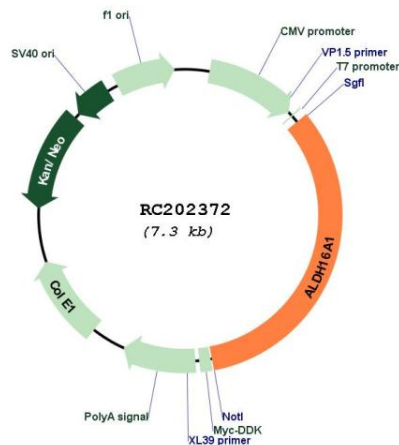
**Domains:** aldedh

**Protein Families:** Druggable Genome

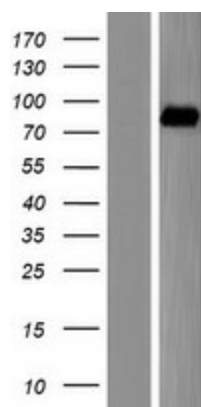
**MW:** 85.1 kDa

**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]

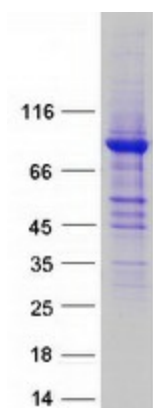
### Product images:



Circular map for RC202372



Western blot validation of overexpression lysate (Cat# [LY407048]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202372 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALDH16A1 protein (Cat# [TP302372]). The protein was produced from HEK293T cells transfected with ALDH16A1 cDNA clone (Cat# RC202372) using MegaTran 2.0 (Cat# [TT210002]).