

Product datasheet for **MR208298**

Aldh1a2 (NM_009022) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aldh1a2 (NM_009022) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aldh1a2
Synonyms:	Aldh1a7; AV116159; Raldh1; Raldh2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR208298 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGACTTCCAGCGAGATCGCCATGCCGGCGAGGTGAAGGCCACCCCGCCGCTCATGGCCTCGCTGC
 AGCTCCTGCCGTCGCCACGCCAACCTCGAGATCAAGTACACCAAGATCTTTATTAACAATGAATGGCA
 GAACTCAGAGAGTGGGAGAGTGTCCCTGTCTGTAATCCAGCCACAGGAGAGCAAGTGTGTGAAGTTCAA
 GAAGCAGACAAGGTGGATATAGACAAGGCAGTGAAGCAGCCCGCCTTGCCCTTCTCTCTTGGTTCTGTGT
 GGAGAAGGATGGATGCGTCTGAAAGAGGACGTCTGTTGGACAAGCTTGACAGACTTGGTGGAACGGGACAG
 GGCAACTCTTGAACATGGAATCCCTAAATGGCGTAAGCCATTCCTGCAAGCTTTTTACATCGATTTG
 CAGGGAGTCATCAAAACCCTGAGGTATTATGCAGGCTGGGCTGATAAAATTCACGGAATGACCATTCTGT
 TAGATGGAGACTATTTACTTTTACAAGACACGAGCCATTGGAGTGTGTGGACAGATCATCCCGTGGAA
 CTTCCCTCTGCTGATGTTACCTGGAAAATGCTCCCGCATTGTGCTGTGGTAACACCGTGGTCATCAA
 CCCGCTGAGCAGACCCGCTCAGTGCACGTATATGGGAGCCCTCATCAAGGAGGCTGGCTTCCACCCG
 GAGTCGTCAATATCCTGCCAGGGTATGGGCCAACAGCAGGGGCAGCAATCGCTTCTCACATCGGCATAGA
 CAAGATTGCATTCACAGGCTCTACTGAGGTTGGAAAGCTTATTCAAGAAGCAGCTGGAAGAAGTAACCTG
 AAGAGAGTGACCTGGAACCTCGGAGGGAAGAGCCCTAATATTTATTTTGCAGATGCTGACTTGGACTACG
 CTGTGGAGCAGGCTCACCAGGGTGTGTTCTTCAACCAAGGCCAGTGTGCACCGCAGGGTCTCGCATCTT
 TGTGGAAGAATCCATCTATGAGGAATTTGTGAAAAGAAGTGTGAAAGGGCCAAGAGGCGCATTGTGGG
 AGCCCTTTGATCCACAACCTGAGCAGGGTCTCAGATCGATAAGAAACAATAACAACAAGTCTCTGGAGC
 TTATCCAGAGCGGTGTGGCTGAGGGCGCCAAGCTGGAGTCCGGAGGCAAGGGCTGGGAAGGAAGGGCTT
 CTTCAATTGAGCCACCGTGTCTCCAACGTCAGTGTGATGACATGCGGATTGCCAAGGAGGAGATCTTTGGT
 CCTGTTCAAGAAATTTTGAAGTTTAAAGACTATGGATGAAGTTATAGAAAGAGCCAATAACTCAGACTTTG
 GACTTGTAGCAGCTGTCTTCACTAATGACATCAACAAGGCTCTCATGGTATCCTCCGCAATGCAAGCTGG
 GACAGTTTGGATCAATTGTTACAATGCCTTAAATGCGCAGAGCCCTTTGGGGGTTCAAGATGTCTGGA
 AATGGGAGAGAAATGGGTGAGTTTGGCTTACGGGAGTATTCAGAAGTAAAGACCGTGACGGTGAAGATCC
 CCCAGAAGAACTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208298 protein sequence
 Red=Cloning site Green=Tags(s)

MTSSEIAMPGEVKADPAALMASLQLLPSPTPNLEIKYTKIFINNEWQNSESGRVFVPCNPATGEQVCEVQ
 EADKVDIDKAVQAARLAFSLGSVWRRMDASERGLLDKLDLVERDRATLATMESLNGGKPFLLQAFYIDL
 QGVIKTLRYYAGWADKIHGMTIPVDGDYFTFTRHEPIGVCGQIIPWNFPLLMFTWKIAPALCCGNTVVIK
 PAEQTPLSALYMGALIKEAGFPVGNILPGYGPTAGAAIASHIGIDKIAFTGSTEVGKLIQEAAGRSNL
 KRVTLELGGKSPNIIIFADADLDYAVEQAHQGVFFNQGCCTAGSRIFVEESIYEEFVKRSVERAKRRIVG
 SPFDPTTEQGPQIDKKQYNKVLLEIQSGVAEGAKLECGGKGLGRKGFIEPTVFSNVTDMMRIAKEEIFG
 PVQEILRFKTMDEVIERANNSDFGLVAAVFTNDINKALMVSSAMQAGTVWINCYNALNAQSPFFGFKMSG
 NGREMGEFGLREYSEVKTVTVKIPQKNS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_009022

ORF Size: 1554 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_009022.4](#), [NP_033048.2](#)

RefSeq Size: 2264 bp

RefSeq ORF: 1557 bp

Locus ID: 19378

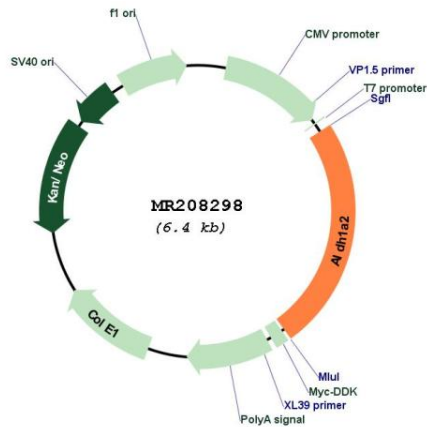
UniProt ID: [Q62148](#)

Cytogenetics: 9 39.85 cM

MW: 56.6 kDa

Gene Summary: Converts retinaldehyde to retinoic acid (PubMed:8797830). Recognizes as substrates free retinal and cellular retinol-binding protein-bound retinal (By similarity). Lacks activity with benzaldehyde, acetaldehyde and octanal (PubMed:8797830). Displays complete lack of activity with citral (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR208298