

Product datasheet for **MR208207**

Aldh7a1 (NM_001127338) Mouse Tagged ORF Clone

Product data:

| | |
|--------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Aldh7a1 (NM_001127338) Mouse Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Aldh7a1 |
| Synonyms: | Atq1; D18Wsu181e |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Cell Selection: | Neomycin |



[View online »](#)

ORF Nucleotide Sequence:

>MR208207 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCTACTCTGCTGATCCATCATCCCCAGTATGCCTGGCTGCAAGACCTGGGGCTCCGCGAGGATAACG
 AGGGCGTGATAATGGAAGCTGGGGCGGCCGGGAGAGGTAATTACGACCTATTGCTCCTGCTAACATGA
 GCCAATAGCAAGAGTCCGACAGGCCAGCCTGAAGGACTATGAAGAAACCATCGGGAAAGCCAAGAAAGCC
 TGGAACTCTGGGCAGATATTCCTGCCCAAAGCGAGGAGAAATAGTCAGAAAGATTGGCGATGCCTTCC
 GGGAGAAGATTCAACTACTGGGAAGACTGGTGTCTTTGGAGATGGGGAAAATCCTCGTGGAAAGGAATAGG
 CGAGGTTCCAGGAGTACGTGGACGCTGTGACTATGCTGCTGGCTTGTGAGGATGATCGGGGACCCACC
 TTGCCCTCTGAAAGACCCGGCCATGCTCTCATCGAAATGTGGAATCCCTTAGGCTTGGTGGGAATCATCA
 CTGCCCTCAATTTCCCCGTGGCTGTGTTGGCTGGAACAATGCCATAGCCCTGATCACAGGGAATGTCTG
 CCTTTGGAAGGAGCACCAGCTACGTCCCTCGTTAGTGTGGCTGTCAAAAGATCATAGCCAGGTTTTG
 GAGGACAACCTGCTGCCCGGTGCCATTTGTTCCCTGGTTTGTGGTGGAGCAGATATCGGCACAACGATGG
 CCAGAGATGAGCGTGTGAACCTGCTGCTTCACTGGGAGCACTCAGGTGGGGAAGGAGGTGGCCCTCAT
 GGTGCAGGAGAGGTTTGGGAAAAGCTTGTGGAGCTTGGAGGAAACAACGCCATTATTGCTTTCGAGGAC
 GCGGACCTCAGCTTGGTTGTTCCATCAGTTCTGTTTGGCCCGCTGGGAACAGCTGGGCAAAGGTGTACCA
 CTGTGAGGCGACTGTTTTGCACGAAAGCATCCATAATGAAGTTGTGGACAGACTGAGAAGTGCCTACTC
 ACAGATCCGTGTCGGGAACCCCTGGGACCCCAATCCTCTATGGACCGCTCCATACCAACAGGCAGTG
 AGCATGTTTGTGAGAGCCGTGGAAGAAGCCAAGAAACAAGGGGACAGTGGTCTATGGGGCAAGGTCA
 TGGACCACCTGGCAATTACGTGGAACCCACCATTGTGACCGGCTTGGCCATGATCGGCCAATGTTCA
 CCAGGAGACTTTTGCCCAATCCTCTATGTCTTCAAATTCAGGATGAAGAAGAGGTCTTTGAATGGAAAC
 AATGAAGTAAACAGGGACTTCAAGTAGTATCTTTACCAAGATTTGGGAGAATCTTCCGCTGGCTTGG
 GACCTAAAGTTCCGACTGTGGCATCGTGAACGTCATATTCCTACCAGCGGGGCTGAGATTGGTGGTGC
 GTTTGGCGGAGAGAAGCACACTGGCGGTGGCCGGGAGTCTGGCAGCGACGCTGGAAGCAGTACATGAGG
 AGATCCACATGTACCATCAACTACAGCAGTCCCTCCCTCTGGCTCAGGGAATCAAGTTTCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR208207 protein sequence
 Red=Cloning site Green=Tags(s)

MSTLLIHHYPQYAWLQDLGLREDNEGVYNGSWGGRGEVITTYCPANNEPIARVRQASLKDYEETIGKAKKA
 WNIWADIPAPKRGEIVRKIGDAFREKIQLLGRVLSLEMGKILVEGIGEVQYVVDVCDYAAGLSRMIGGPT
 LPSEPRGHALIEMWNPLGLVGIITAFNFPVAVFGWNNALITGNVCLWKGAPTTSLVSVAVTKIIAQVL
 EDNLLPGAICSLVCGGADIGTTMARDERNLLSFTGSTQVQKEVALMVQERFGKSLLELGGNNAI IAFED
 ADLSLVVPSVLA AVGTAGQRCTTVRRFLHESIHNVEVDRLRSAYSQIRVGNPWPDPNIIYGPLHTKQAV
 SMFVRAVEEAKKQGGTVVYGGKVM DHPGNYVEPTIVTGLAHDAPIVHQETFAPILYVFKQDEEEVFEWN
 NEVKQGLSSSIFTKDLGRIFRWLGPKGSDCGIVNVIPTSGAEIGGAFGG EKHTGGGRESGSDAWKQYMR
 RSTCTINYSTSLPLAQGIKFQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

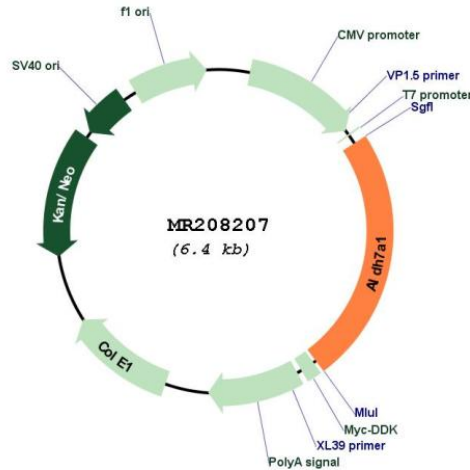
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN: NM_001127338

ORF Size: 1536 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_001127338.1](#), [NP_001120810.1](#)

RefSeq Size: 3105 bp

RefSeq ORF: 1536 bp

Locus ID: 110695

UniProt ID: [Q9DBF1](#)

Cytogenetics: 18 30.55 cM

MW: 55.6 kDa

Gene Summary: Multifunctional enzyme mediating important protective effects. Metabolizes betaine aldehyde to betaine, an important cellular osmolyte and methyl donor. Protects cells from oxidative stress by metabolizing a number of lipid peroxidation-derived aldehydes. Involved in lysine catabolism (By similarity).[UniProtKB/Swiss-Prot Function]