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Product datasheet for SC111837

ALDH8A1 (NM_022568) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ALDH8A1 (NM_022568) Human Untagged Clone
Tag:	Tag Free
Symbol:	ALDH8A1
Synonyms:	ALDH12; DJ352A20.2
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene ORF sequence for NM_022568 edited
ATGGCTGGAACAAACGCACTTTTGATGCTGGAAAACTTCATAGATGGAAAATTTTTACCT
TGTAGCTCATATATAGATTCTTACGACCCATCAACAGGGGAAGTGTATTGCAGAGTGCCA
AATAGTGGAAAAGACGAGATCGAAGCCGCGGTCAAGGCCGCCAGAGAAGCCTTTCCCAGC
TGGTCATCCCGCAGCCCCCAGGAGCGCTCACGGGTCCTGAACCAGGTGGCGGATTTGCTG
GAGCAGTCCCTGGAGGAGTTTGCCCAGGCCGAGTCTAAAGACCAAGGGAAAACCTTAGCA
CTGGCAAGAACCATGGACATTCCCCGGTCTGTGCAGAACTTCAGGTTCTTCGCTTCCTCC
AGCCTGCACCACACGTCAGAGTGCACGCAGATGGACCACCTGGGCTGCATGCACTACACG
GTGCGGGCCCCGGTGGGAGTCGCTGGTCTGATCAGCCCCTGGAATTTGCCACTCTACTTG
CTGACCTGGAAGATAGCTCCAGCGATGGCTGCAGGGAACACTGTGATAGCCAAGCCCAGT
GAGCTGACTTCAGTGACTGCGTGGATGTTGTGCAAACTCCTGGATAAAGCAGGTGTTCCA
CCAGGTGTGGTCAATATTGTGTTTGGAACCGGGCCCAGGGTGGGTGAGGCCCTGGTGTCC
CACCCAGAGGTGCCCCTGATCTCCTTCACCGGGAGCCAGCCCACCGCTGAGCGGATCACC
CAGCTGAGCGCTCCCCACTGCAAAAAGCTCTCCCTGGAGCTGGGGGGCAAGAATCCTGCC
ATCATCTTTGAGGACGCCAACCTGGATGAGTGCATTCCGGCAACCGTCAGGTCCAGCTTT
GCCAACCAGGTCAGAAGTTACGTCAAGAGAGCTCTTGCTGAAGGTGCCCAAATTTGGTGC
GGTGAGGGAGTGGATAAGTTGAGCCTCCCTGCCAGGAACCAGGCAGGCTACTTTATGCTT
CCCACGGTGATAACAGACATTAAGGATGAATCCTGCTGCATGACGGAAGAGATATTTGGT
CCAGTGACGTGTGTCGTCCCCTTTGATAGTGAAGAGGAGGTGATTGAAAGAGCCAACAAC
GTTAAGTATGGGCTGGCGGCTACCGTGTGGTCCAGCAATGTGGGGCGCGTCCACCGGGTG
GCTAAGAAGCTGCAGTCTGGCTTGGTCTGGACCAACTGCTGGCTCATCAGGGAGCTGAAC
CTTCCTTTCGGGGGGATGAAGAGTTCTGGAATAGGTAGAGAGGGAGCCAAGGACTCTTAC
GACTTCTTCACTGAGATCAAAACCATCACCGTTAAACACTGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_022568 unedited
TACGACTCACTATAGGGCGGCCGCGAATTCGCACGAGCTCAGTCGTAAAGAGGAAAGGCA
GAATTTTTCCTTGCTATGGCTGGAACAAACGCACTTTTGATGCTGGAAAACTTCATAGAT
GGAAAATTTTTACCTTGTAGCTCATATATAGATTCTTACGACCCATCAACAGGGGAAGTG
TATTGCAGAGTGCCAAATAGTGGAAAAGACGAGATCGAAGCCGCGGTCAAGGCCGCCAGA
GAAGCCTTTCCCAGCTGGTCATCCCGCAGCCCCCAGGAGCGCTCACGGGTCCTGAACCAG
GTGGCGGATTTGCTGGAGCAGTCCCTGGAGGAGTTTGCCCAGGCCGAGTCTAAAGACCAA
GGGAAAACCTTAGCACTGGCAAGAACCATGGACATTCCCCGGTCTGTGCAGAACTTCAGG
TTCTTCGCTTCCTCCAGCCTGCACCACACGTCAGAGTGCACGCAGATGGACCACCTGNGC
TGCATGCACTACACGGTGCGGGCCCCGGTGGGAGTCGCTGGTCTGATCAGCCCCTGGAAT
TTGCCACTCTACTTGCTGACCTGGAAGATAGCTCCAGCGATGGCTGCAGGGAACACTGTG
ATAGCCAAGCCCAGTGAGCTGACTTCAGTGACTGCGTGGATGTTGTGCAAACTCCTGGAT
AAGCAGGTGTTCCACCAGGTGTGGTCAATATTGTGTTTGGAAACCGGCCCAGGGTGGGTG
ANGCCCTGGTGTCCACCCAGAGTGCCCCTGATCTCCTTCACCGGAGCCAGCCCACGCTGA
GCGGATCACCAGCTGAGCGCTTCCACTGCAAAAGCTCTCCTGGNAGCTGGGGGCAGAATC
TGCCATATCTTGAGACGCACCTGGAGAGTGCATTCGGCACCGTCAGTCAGCTTTGCACCA
GTCAGAATACTCAGAAGCTTGCTGAGTGCCAATTGTGCGGAGGAAGGATATTGACCTCTC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_022568 unedited
GGCCGCAATCTANAGTCGAGTTTTTTTTTTTTTTTTTTTTACTAAAATTGCTTAACATT
TATTGCTTCTTTTGGGGTTAGCAAGTTGTAAGCCTCATTAGATGCATACACTAAGAAATG
GAATTGATTAGACTCGACCGTAGGAATGGATCAAACTATGTACTCTTCTTGTTCCAAGTT
TCCTCCAAAAGTAGTAGTTATTTTGTTTTTCTTCATCCTTGTACAGATACATTTAGTAGA
GCTTACCACATAGCCTTCCCCTAACAAATTCCAAAGACGTCCACAGCCCCCTTATGTAAT
GAGGTCCAATCAATGATCAATTAGCCATGCTAGTGGCTAATAGACAAGGAGATTATCTCC
ATAATCTCTCCAAAGATGGCAAATTATGGCTATTTATTTTTGGTTTTGCAGCATTTTTTT
TTTAAAGACAAGGTCTCACTGTATCCCCCAGGCTGAAATGCAGTGGAATGATCATGGCTC
ACTGCAGCCTCAACCGCCTGGGCTCAAGCAATCCTCCCACCTCAGCCTCCCAAGTAGCTG
GGGCTATAGGCAGAGGGCACCACACCAAGCTAATTTTTAAACTTTTGGTAAAGACAGGAT
TTCACCATGTTGCCTAGGCTGATCTCGAACTCCTGAACTCAAGTGATCCACCCACCTTGG
CCTCCCAAAGTGCTGGGATTATAGGCATGANGCACTGTGCCTGATTGCATATTTTTTAAA
ATTTACCANATGAAATAATCTGATTATCTGGAGATTCCCCAGAGCTCAATGAAGATGATG
NAAGAACACTATGAAAACCATACCTGGGAGGAGCCTGACACTGGCATCATTGGTCTATCT
TNCCTACTATAAGNCTTTNTTTCCGAGTCCACATGAANATAGACAGTATCTCTTCACTAT
GGGTAAGCTACTAAGACTGAGGATAGCTANAGATACCTTCTGCAGTCAAGGCTANCTGGA
ATCTGCCATGATTCTCTACACAA

Restriction Sites: NotI-NotI

ACCN: NM_022568

Insert Size: 2460 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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_022568.2, NP_072090.1

RefSeq Size: 2549 bp

RefSeq ORF: 1464 bp

Locus ID: 64577

UniProt ID: Q9H2A2

Cytogenetics: 6q23.3

Domains: aldedh

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]
Transcript Variant: This variant (1) represents the longer transcript, and encodes the longer protein (isoform 1).