

# AKR1D1 cDNA

Catalog Number: ATGD0024

## PRODUCT INFORMATION

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**Catalog number**

ATGD0024

**Product type**

cDNA

**Species**

Human

**NCBI Accession No.**

NP\_005980.1

**Alternative Names**

Aldo-keto reductase family 1 member D1, SRD5B1, Delta 4-3-ketosteroid-5-beta-reductase

**mRNA Refseq**

NM\_005989.3

**OMIM**

604741

**Chromosome location**

7q32-q33

## PRODUCT SPECIFICATION

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**Formulation**

Lyophilized

**Storage**

Store the plasmid at -20C.

**cDNA Size**

981bp

**Preparation before usage**

1. Centrifuge at 7000rpm for 1 minute.
2. Carefully open the vial and add 100ul of sterile water to dissolve the DNA. Each tube contains approximately 10ug of lyophilized plasmid.

**Vector description**

This shuttle vector contains the complete ORF. It is inseted BamH I to Xho I. The gene insert contains multiple cloning sites which can be used to easily cut and transfer the gene and recombination site into your expression vector.

**Cloning Vector**

pATGen (puc19-derived cloning vector)

**General Description**

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Aldo-keto reductase family 1, member D1, also known as AKR1D1, is a member of the AKR superfamily. The AKR family of proteins are soluble NADPH oxidoreductases. They play important roles in the metabolism of drugs, carcinogens and reactive aldehydes. AKR1D1 is responsible for the catalysis of the 5-beta-reduction of bile acid intermediates and steroid hormones which carry a delta (4) -3-one structure. AKR1D1 is highly expressed in liver, colon and testis. Deficiency of this enzyme may contribute to hepatic dysfunction.

## DATA

### Sequence nucleotides

```
ATGGATCTCA GTGCTGCAAG TCACCGCATA CCTCTAAGTG ATGGAAACAG CATTCCCATC ATCGGACTTG
GTACCTACTC AGAACCTAAA TCGACCCCTA AGGGAGCCTG TGCAACATCG GTGAAGGTTG CTATTGACAC
AGGGTACCGA CATATTGATG GGGCCTACAT CTACCAAAT GAACACGAAG TTGGGGAGGC CATCAGGGAG
AAGATAGCAG AAGGAAAGGT GCGGAGGGAA GATATCTTCT ACTGTGAAA GCTATGGGCT ACAAATCATG
TCCCAGAGAT GGTCCGCCA ACCCTGGAGA GGACTCTCAG GGTCCCTCCAG CTAGATTATG TGGATCTTTA
CATCATTGAA GTACCCATGG CCTTTAAGCC AGGAGATGAA ATATACCCTA GAGATGAGAA TGGCAAATGG
TTATATCACA AGTCAAATCT GTGTGCCACT TGGGAGGCGA TGGAAGCTTG CAAAGACGCT GGCTTGGTGA
AATCCCTGGG AGTGTCCAAT TTTAACCGCA GGCAGCTGGA GCTCATCCTG AACAAGCCAG GACTCAAACA
CAAGCCAGTC AGCAACCAGG TTGAGTGCCA TCCGTATTTT ACCCAGCCAA AACTCTTGAA ATTTTGCCAA
CAACATGACA TTGTCATTAC TGCATATAGC CCTTTGGGGA CCAGTAGGAA TCCAATCTGG GTGAATGTTT
CTTCTCCACC TTTGTAAAG GATGCACTTC TAAACTCATT GGGGAAAAGG TACAATAAGA CAGCAGCTCA
AATTGTTTTG CGTTTCAACA TCCAGCGAGG GGTGGTTGTC ATTCTAAAA GCTTTAATCT TGAAAGGATC
AAAGAAAATT TTCAGATCTT TGACTTTTCT CTCACTGAAG AAGAAATGAA GGACATTGAA GCCTTGAATA
AAAATGTCCG CTTTGTAGAA TTGCTCATGT GGCGCGATCA TCCTGAATAC CCATTTTCATG ATGAATACTG A
```

### Transaction Sequence

```
MDLSAASHRI PLSDGNSIPI IGLGTYSEPK STPKGACATS VKVAIDTGYR HIDGAIYQN EHEVGEAIRE KIAEGKVRRE
DIFYCGKLWA TNHVPVMVRP TLERTLRVLQ LDYVDLYIIE VPMFKPGDE IYPRDENGKW LYHKSNLKAT WEAMEACKDA
GLVKSLGVSF FNRRQLELIL NKPLKHKPV SNQVECHPYF TQPKLLKFCQ QHDIVITAYS PLGTSRNPW VNVSSPLLK
DALLNSLGKR YNKTAQIVL RFNIQRGVV IPKSFNLERI KENFQIFDFS LTEEMKDIE ALNKNVRFVE LLMWRDHPEY
PFHDEY
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