

## ALAD cDNA

Catalog Number: ATGD0032

### PRODUCT INFORMATION

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**Catalog number**

ATGD0032

**Product type**

cDNA

**Species**

Human

**NCBI Accession No.**

NP\_000022.3

**Alternative Names**

ALADH, PBGS

**mRNA Refseq**

NM\_000031.5

**OMIM**

125270

**Chromosome location**

9q33.1

### PRODUCT SPECIFICATION

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**Formulation**

Lyophilized

**Storage**

Store the plasmid at -20C.

**cDNA Size**

993bp

**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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The ALAD enzyme is composed of 8 identical subunits and catalyzes the condensation of 2 molecules of delta-aminolevulinate to form porphobilinogen (a precursor of heme, cytochromes and other hemoproteins). ALAD catalyzes the second step in the porphyrin and heme biosynthetic pathway; zinc is essential for enzymatic activity. ALAD enzymatic activity is inhibited by lead and a defect in the ALAD structural gene can cause increased sensitivity to lead poisoning and acute hepatic porphyria

### DATA

#### Sequence nucleotides

```
ATGCAGCCCC AGTCCGTTCT GCACAGCGGC TACTTCCACC CACTACTTCG GGCCTGGCAG ACAGCCACCA
CCACCCTCAA TGCCTCCAAC CTCATCTACC CCATCTTTGT CACGGATGTT CCTGATGACA TACAGCCTAT
CACCAGCCTC CCAGGAGTGG CCAGGTATGG TGTGAAGCGG CTGGAAGAGA TGCTGAGGCC CTTGGTGGAA
GAGGGCCTAC GCTGTGTCTT GATCTTTGGC GTCCCCAGCA GAGTTCCCAA GGACGAGCGG GGTTCGCGAG
CTGACTCCGA GGAGTCCCCA GCTATTGAGG CAATCCATCT GTTGAGGAAG ACCTTCCCCA ACCTCCTGGT
GGCCTGTGAT GTCTGCCTGT GTCCCTACAC CTCCCATGGT CACTGCGGGC TCCTGAGTGA AAACGGAGCA
TTCCGGGCTG AGGAGAGCCG CCAGCGGCTG GCTGAGGTGG CATTGGCGTA TGCCAAGGCA GGATGTCAGG
TGGTAGCCCC GTCGGACATG ATGGATGGAC GCGTGGAAGC CATCAAAGAG GCCCTGATGG CACATGGACT
TGGCAACAGG GTATCGGTGA TGAGCTACAG TGCCAAATTT GCTTCCTGTT TCTATGGCCC TTTCCGGGAT
GCAGCTAAGT CAAGCCCAGC TTTTGGGGAC CGCCGCTGCT ACCAGCTGCC CCCTGGAGCA CGAGGCCTGG
CTCTCCGAGC TGTGGACCGG GATGTACGGG AAGGAGCTGA CATGCTCATG GTGAAGCCGG GAATGCCCTA
CCTGGACATC GTGCGGGAGG TAAAGGACAA GCACCCTGAC CTCCCTCTCG CCGTGTACCA CGTCTCTGGA
GAGTTTGCCA TGCTGTGGCA TGGAGCCCAG GCCGGGGCAT TTGATCTCAA GGCTGCCGTA CTGGAGGCCA
TGACTGCCTT CCGCAGAGCA GGTGCTGACA TCATCATCAC CTACTACACA CCGCAGCTGC TGCAGTGGCT
GAAGGAGGAA TGA
```

#### Transaction Sequence

```
MQPQSVLHSG YFHPLLRWQ TATTTLNASN LIYPIFVTDV PDDIQPITSL PGVARYGVKR LEEMLRPLVE EGLRCVLIFG
VPSRVPKDER GSAADSEESP AIEAIHLLRK TFPNLLVACD VCLCPYTSHG HCGLLSENGA FRAEESRQRL AEVALAYAKA
GCQVVAPSDM MDGRVEAIKE ALMAHGLGNR VSVMSYSAKF ASCFYGPFRD AAKSSPAFGD RRCYQLPPGA RGLALRAVDR
DVREGADMLM VKPGMPYLDI VREVKDKHPD LPLAVYHVSG EFAMLWHGAQ AGAFDLKAAV LEAMTAFRRA GADIIITYYT
PQLLQWLKEE
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