

AK4 cDNA

Catalog Number: ATGD0216

PRODUCT INFORMATION

Catalog number

ATGD0216

Product type

cDNA

Species

Human

NCBI Accession No.

NP_982289.1

Alternative Names

AK 4, AK3, AK3L1, AK3L2

mRNA Refseq

NM_203464.2

OMIM

103030

Chromosome location

1p31.3

PRODUCT SPECIFICATION

Formulation

Lyophilized

Storage

Store the plasmid at -20C.

cDNA Size

672bp

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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AK4 encodes a member of the adenylate kinase family of enzymes. The encoded protein is localized to the mitochondrial matrix. Adenylate kinases regulate the adenine and guanine nucleotide compositions within a cell by catalyzing the reversible transfer of phosphate group among these nucleotides. Five isozymes of adenylate kinase have been identified in vertebrates. Expression of these isozymes is tissue-specific and developmentally regulated. A pseudogene for this gene has been located on chromosome 17. Three transcript variants encoding the same protein have been identified for this gene. Sequence alignment suggests that the gene defined by NM_013410, NM_203464, and NM_001005353 is located on chromosome 1.

DATA

Sequence nucleotides

```
ATGGCTTCCAAACTCCTGCGCGCGGTCATCCTCGGGCCGCCCGGCTCGGGCAAGGGCACCGTGTGCCAGAGGATCGCCCA  
GAACTTTGGTCTCCAGCATCTCTCCAGCGGCCACTTCTTGCGGGGAGAACATCAAGGCCAGCACCGAAGTTGGTGAGATGGC  
AAAGCAGTATATAGAGAAAAGTCTTTTGGTTCCAGACCATGTGATCACACGCCTAATGATGTCCGAGTTGGAGAACAGGCGT  
GGCCAGCACTGGCTCCTTGATGGTTTTCTAGGACATTAGGACAAGCCGAAGCCCTGGACAAAATCTGTGAAGTGGATCTA  
GTGATCAGTTTTGAATATTCCATTTGAAACACTTAAAGATCGTCTCAGCCGCCGTTGGATTACCCTCCTAGCGGAAGGGTAT  
ATAACCTGGACTTCAATCCACCTCATGTACATGGTATTGATGACGTCCTGGTGAACCGTTAGTCCAGCAGGAGGATGATAA  
ACCCGAAGCAGTTGCTGCCAGGCTAAGACAGTACAAAGACGTGGCAAAGCCAGTCATTGAATTATACAAGAGCCGAGGAGT  
GCTCCACCAATTTCCGGAACGGAGACGAACAAAATCTGGCCCTACGTTTACACACTTTTCTCAAACAAGATCACACCTATTC  
AGTCCAAAGAAGCATATTGA
```

Transaction Sequence

```
MASKLLRAVI LGPPGSGKGT VCQRIAQNFQ LQHLSSGHFL RENIKASTEY GEMAKQYIEK SLLVDPDHVIT RLMMSELENR  
RGQHWLLDGF PRTLQAEAL DKICEVDLVI SLNIPFETLK DRLSRRWIHP PSGRVYNLDF NPPHVHGIDD VTGEPLVQQE  
DDKPEA VAAR LRQYKDVAKP VIELYKSRGV LHQFSGTETN KIWPYVYTLF SNKITPIQSK EAY
```