

Product datasheet for **RG220572**

AK3L1 (AK4) (NM_013410) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AK3L1 (AK4) (NM_013410) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AK3L1
Synonyms:	AK3; AK3L1; AK3L2; AK 4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG220572 representing NM_013410 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTCCAACCTCTGCGCGGGTCATCCTCGGGCCGCCGGCTCGGGCAAGGGCACCCTGTGCCAGA
GGATCGCCAGAACTTTGGTCTCCAGCATCTCTCCAGCGGCCACTTCTTGC GGAGAACATCAAGGCCAG
CACCGAAGTTGGTGAGATGGCAAAGCAGTATATAGAGAAAAGTCTTTTGGTTCCAGACCATGTGATCACA
CGCCTAATGATGTCCGAGTTGGAGAACAGCGGTGCCAGCACTGGCTCCTTGATGGTTTTCTAGGACAT
TAGGACAAGCCGAAGCCCTGGACAAAATCTGTGAAGTGGATCTAGTGATCAGTTTGAATATCCATTGA
AACACTTAAAGATCGTCTCAGCCGCCGTTGGATTACCCTCCTAGCGGAAGGGTATATAACCTGGACTTC
AATCCACCTCATGTACATGGTATTGATGACGTCCTGGTGAACCGTTAGTCCAGCAGGAGGATGATAAAC
CCGAAGCAGTTGCTGCCAGGCTAAGACAGTACAAAGACGTGGCAAAGCCAGTCATTGAATTATACAAGAG
CCGAGGAGTGCTCCACCAATTTCCGGAACGGAGACGAACAAAATCTGGCCCTACGTTTACACACTTTTC
TCAAACAAGATCACACCTATTAGTCCAAAGAAGCATAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG220572 representing NM_013410
 Red=Cloning site Green=Tags(s)

MASKLLRAVILGPPGSGKGTVCQRIAQNFGLQHLSSGHFLRENIKASTEVEGEMAKQYIEKSLLPDQHVIT
 RLMMSLEENRRGQHWLLDGFPRTLGQAEALDKICEVDLVISLNIPFETLKDRLSRRWIHPPSGRVYNLDF
 NPPHVHGIDDDVTGEPLVQQEDDKPEAVAARLRQYKDVAKPVIELYKSRGVLHQFSGTETNKIWPVYVTLF
 SNKITPIQSKEAY

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_013410

ORF Size: 669 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_013410.4](#)

RefSeq Size: 2199 bp

RefSeq ORF: 672 bp

Locus ID: 205

UniProt ID: [P27144](#)

Cytogenetics: 1p31.3

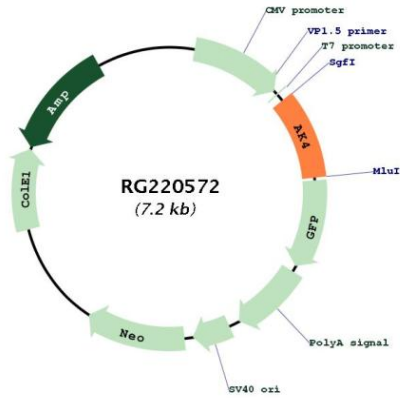
Domains: ADK, ADK_lid

Protein Families: Druggable Genome

Protein Pathways: Metabolic pathways, Purine metabolism

Gene Summary: This gene 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. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG220572