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Product datasheet for RC220572

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:	Myc-DDK
Symbol:	AK3L1
Synonyms:	AK3; AK3L1; AK3L2; AK 4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC220572 representing NM_013410
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTTCCAAACTCCTGCGCGCGGTCATCCTCGGGCCGCCCGGCTCGGGCAAGGGCACCGTGTGCCAGA
GGATCGCCCAGAACTTTGGTCTCCAGCATCTCTCCAGCGGCCACTTCTTGCGGGAGAACATCAAGGCCAG
CACCGAAGTTGGTGAGATGGCAAAGCAGTATATAGAGAAAAGTCTTTTGGTTCCAGACCATGTGATCACA
CGCCTAATGATGTCCGAGTTGGAGAACAGGCGTGGCCAGCACTGGCTCCTTGATGGTTTTCCTAGGACAT
TAGGACAAGCCGAAGCCCTGGACAAAATCTGTGAAGTGGATCTAGTGATCAGTTTGAATATTCCATTTGA
AACACTTAAAGATCGTCTCAGCCGCCGTTGGATTCACCCTCCTAGCGGAAGGGTATATAACCTGGACTTC
AATCCACCTCATGTACATGGTATTGATGACGTCACTGGTGAACCGTTAGTCCAGCAGGAGGATGATAAAC
CCGAAGCAGTTGCTGCCAGGCTAAGACAGTACAAAGACGTGGCAAAGCCAGTCATTGAATTATACAAGAG
CCGAGGAGTGCTCCACCAATTTTCCGGAACGGAGACGAACAAAATCTGGCCCTACGTTTACACACTTTTC
TCAAACAAGATCACACCTATTCAGTCCAAAGAAGCATAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC220572 representing NM_013410
Red=Cloning site Green=Tags(s)

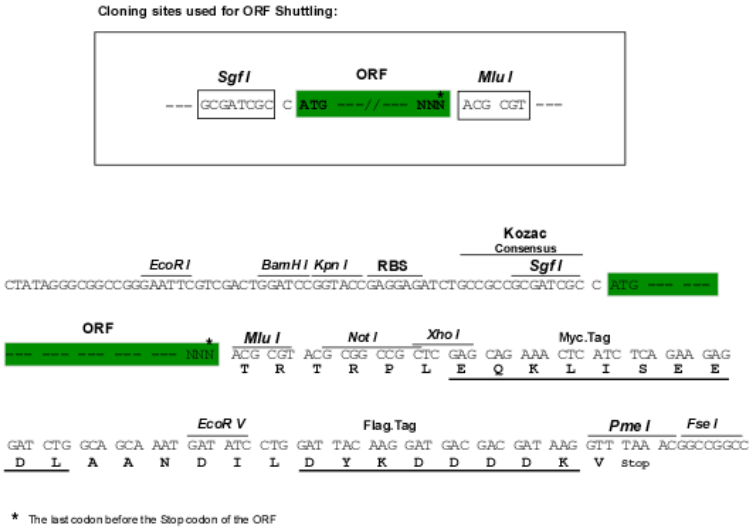
MASKLLRAVILGPPGSGKGTVCQRIAQNFGLQHLSSGHFLRENIKASTEVGEMAKQYIEKSLLVPDHVIT
RLMMSELENRRGQHWLLDGFPRTLGQAEALDKICEVDLVISLNIPFETLKDRLSRRWIHPPSGRVYNLDF
NPPHVHGIDDVTGEPLVQQEDDKPEAVAARLRQYKDVAKPVIELYKSRGVLHQFSGTETNKIWPYVYTLF
SNKITPIQSKEAY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6046_b07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_013410

ORF Size: 669 bp

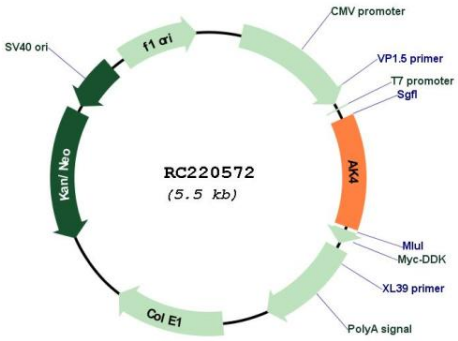
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

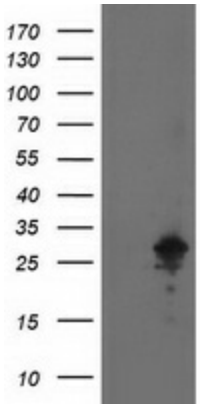
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
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
MW:	25.1 kDa
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]

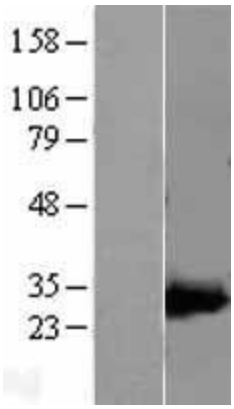
Product images:



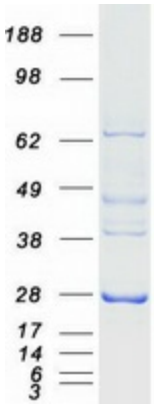
Circular map for RC220572



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AK4 (Cat# RC220572, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-AK4(Cat# [TA503011]). Positive lysates [LY402259] (100ug) and [LC402259] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402259]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220572 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AK4 protein (Cat# [TP320572]). The protein was produced from HEK293T cells transfected with AK4 cDNA clone (Cat# RC220572) using MegaTran 2.0 (Cat# [TT210002]).