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Product datasheet for RC206127

Adenylate kinase 5 (AK5) (NM_012093) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenylate kinase 5 (AK5) (NM_012093) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adenylate kinase 5
Synonyms:	AK6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC206127 representing NM_012093
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTGTTCTAAGCCCGAAGATCCAGTAGAATACTTGGAAAGTTGTTTACAAAAAGTAAAGGAACTGGGTG
GCTGTGACAAGGTGAAATGGGATACATTTGTAAGCCAGGAAAAGAAGACCTTACCTCCACTAAATGGAGG
ACAGTCACGGAGATCCTTTCTAAGAAATGTAATGCCTGGAAACTCAAACTTTCCATATCGGCGGTATGAC
CGGCTCCCTCCAATCCATCAATTCTCCATAGAAAGTGACACGGATCTCTCTGAGACTGCGGAGTTGATTG
AGGAGTATGAGGTTTTTGATCCTACCAGACCTCGACCAAAAATCATTCTTGTTATAGGTGGTCCAGGAAG
TGGAAAGGGTACTCAGAGTTTGAAAATTGCAGAACGATATGGATTCCAATACATTTCTGTGGGAGAATTA
TTAAGAAAGAAGATCCACAGTACCAGCAGCAATAGGAAATGGAGTCTTATTGCCAAGATAATTACAACTG
GAGAATTGGCCCCACAGGAAACAACAATTACAGAGATAAAACAAAAATTGATGCAAATACCTGATGAAGA
GGGCATTGTTATTGATGGATTTCCAAGAGATGTTGCCCAGGCTCTATCTTTTGAGGACCAAATCTGTACC
CCCGATTTGGTGGTATTCCTGGCTTGTGCTAATCAGAGACTCAAAGAAAGATTACTGAAGCGTGCAGAAC
AGCAGGGCCGACCAGACGACAATGTAAAAGCTACCCAAAGGAGACTAATGAACTTCAAGCAGAATGCTGC
TCCATTGGTTAAATACTTCCAGGAAAAGGGGCTCATCATGACATTTGATGCCGACCGCGATGAGGATGAG
GTGTTCTATGACATCAGCATGGCAGTTGACAACAAGTTATTTCCAAACAAAGAGGCTGCAGCAGGTTCAA
GTGACCTTGATCCTTCGATGATATTGGACACTGGAGAGATCATTGATACAGGATCTGATTATGAAGATCA
GGGTGATGACCAGTTAAATGTATTTGGAGAGGACACTATGGGAGGTTTCATGGAAGATTTGAGAAAGTGT
AAAATTATTTTCATAATTGGTGGTCCTGGCTCTGGCAAAGGCACACAGTGTGAAAAGCTGGTGGAAAAAT
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ATTGATCAGAGACATTATGGAACGTGGAGACCTGGTGCCCTCAGGCATCGTTTTGGAGCTCCTGAAGGAG
GCCATGGTGGCCAGCCTCGGGGACACCAGGGGCTTCCTGATTGACGGCTATCCTCGGGAGGTGAAGCAAG
GGGAAGAGTTCGGACGCAGGATTGGAGACCCACAGTTGGTGATCTGTATGGACTGCTCGGCAGACACCAT
GACCAACCGCCTTCTCCAAAGGAGCCGGAGCAGCCTGCCTGTGGACGACACCACCAAGACCATCGCCAAG
CGCCTAGAAGCCTACTACCGAGCGTCCATCCCCGTGATCGCCTACTACGAGACAAAAACACAGCTACACA
AGATAAATGCAGAGGGAACACCAGAGGACGTTTTTCTTCAACTCTGCACAGCTATTGACTCTATTTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206127 representing NM_012093
Red=Cloning site Green=Tags(s)

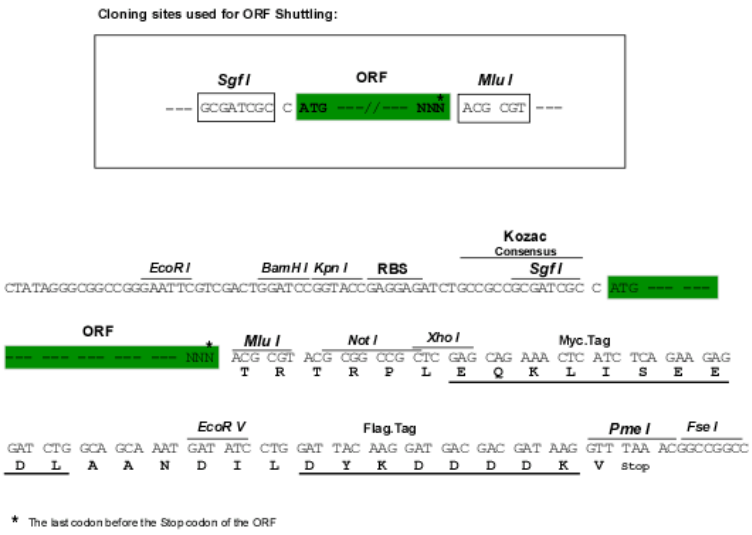
MCSKPEDPVEYLESCLQKVKELGGCDKVKWDTFVSQEKKTLPPLNGGQSRRSFLRNVMPGNSNFPYRRYD
RLPPIHQFSIESDTDLSETAELIEEYEVFDPTRPRPKIILVIGGPGSGKGTQSLKIAERYGFQYISVGEL
LRKKIHSTSSNRKWSLIAKIITTGELAPQETTITEIKQKLMQIPDEEGIVIDGFPRDVAQALSFEDQICT
PDLVVFLACANQRLKERLLKRAEQQGRPDDNVKATQRRLMNFKQNAAPLVKYFQEKGLIMTFDADRDEDE
VFYDISMAVDNKLFPNKEAAAGSSDLDPSMILDTGEIIDTGSDYEDQGDDQLNVFGEDTMGGFMEDLRKC
KIIFIIGGPGSGKGTQCEKLVEKYGFTHLSTGELLREELASESERSKLIRDIMERGDLVPSGIVLELLKE
AMVASLGDTRGFLIDGYPREVKQGEEFGRRIGDPQLVICMDCSADTMTNRLLQRSRSSLPVDDTTKTIAK
RLEAYYRASIPVIAYYETKTQLHKINAEGTPEDVFLQLCTAIDSIF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3036_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012093

ORF Size: 1608 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_012093.4

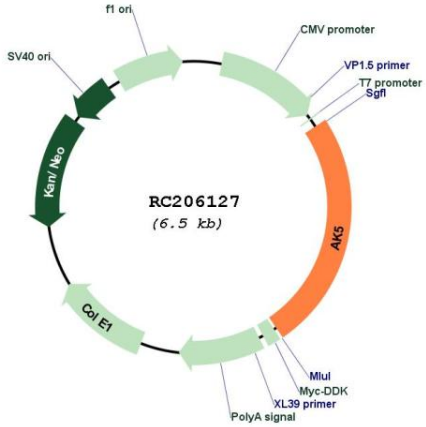
RefSeq Size: 3937 bp

RefSeq ORF: 1611 bp

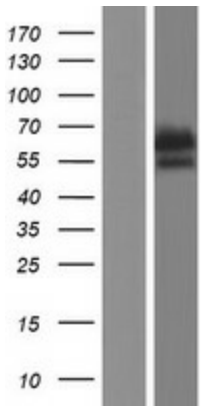
Locus ID: 26289

UniProt ID:	Q9Y6K8
Cytogenetics:	1p31.1
Domains:	ADK
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Purine metabolism
MW:	60.2 kDa
Gene Summary:	This gene encodes a member of the adenylate kinase family, which is involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of phosphate groups among adenine nucleotides. This member is related to the UMP/CMP kinase of several species. It is located in the cytosol and expressed exclusively in brain. Alternatively spliced transcript variants encoding distinct isoforms have been identified for this gene. [provided by RefSeq, Jul 2008]

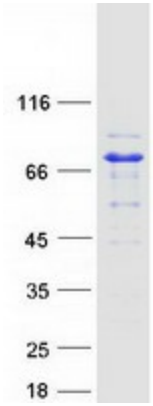
Product images:



Circular map for RC206127



Western blot validation of overexpression lysate (Cat# [LY415983]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206127 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AK5 protein (Cat# [TP306127]). The protein was produced from HEK293T cells transfected with AK5 cDNA clone (Cat# RC206127) using MegaTran 2.0 (Cat# [TT210002]).