

## Product datasheet for **RG206127**

### 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:	TurboGFP
Symbol:	Adenylate kinase 5
Synonyms:	AK6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG206127 representing NM\_012093  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAACACCAACGATGCCAAGGAGTATATGGCCCGAGGGAAATCCCTCAGCTTTTTGAGAGCCTTTTGA  
 ATGGACTGATGTGTTCTAAGCCCGAAGATCCAGTAGAATACTTGGAAAGTTGTTTACAAAAAGTAAAGGA  
 ACTGGGTGGCTGTGACAAGGTGAAATGGGATACATTTGTAAGCCAGGAAAAGAAGACCTTACCTCCACTA  
 AATGGAGGACAGTCACGGAGATCCTTTCTAAGAAATGTAATGCCTGGAAACTCAAACCTTTCCATATCGGC  
 GGTATGACCGGCTCCCTCCAATCCATCAATTCTCCATAGAAAGTGACACGGATCTCTGAGACTGCGGA  
 GTTGATTGAGGAGTATGAGGTTTTGATCCTACCAGACCTCGACCAAAAATCATTCTTGTATAGGTGGT  
 CCAGGAAGTGGAAAGGTAATCAGAGTTTGAATAATGCAGAACGATATGGATTCCAATACATTTCTGTGG  
 GAGAATTATTAAGAAAGAAGATCCACAGTACCAGCAGCAATAGGAAATGGAGTCTTATTGCCAAGATAAT  
 TACAACCTGGAGAATTGGCCCCACAGGAAACAACAATTACAGAGATAAAACAAAAATTTGATGCAAATACCT  
 GATGAAGAGGGCATTGTTATTGATGGATTTCCAAGAGATGTTGCCAGGCCTATCTTTTGGAGACCAAA  
 TCTGTACCCCGATTTGGTGGTATTCTGGCTTGTGCTAATCAGAGACTCAAAGAAAGATTACTGAAGCG  
 TGCAGAACAGCAGGGCCGACCAGACGACAATGTAAGGCTACCCAAAGGAGACTAATGAACCTTCAAGCAG  
 AATGCTGCTCCATTGGTTAAATACTTCCAGGAAAAGGGGCTCATCATGACATTTGATGCCGACCGCGATG  
 AGGATGAGGTGTTCTATGACATCAGCATGGCAGTTGACAACAAGTATTTCCAAACAAAGAGGCTGCAGC  
 AGGTTCAAGTGACCTTGATCCTTCGATGATATTGGACTGGAGAGATCATTGATACAGGATCTGATTAT  
 GAAGTACAGGTGATGACCAGTTAAATGTATTTGGAGAGGACACTATGGGAGTTTCATGGAAGATTTGA  
 GAAAGTGTAAAAATATTTTCATAAATGGTGGCTCTGGCAAAGGCACACAGTGTGAAAAGTCTGGT  
 GGAAAAATATGGATTTACACATCTCTCAACTGGCGAGCTCCTGCGTGAGGAACTGGCATCAGAATCTGAA  
 AGAAGCAAATTGATCAGAGACATTATGGAACGTGGAGACCTGGTCCCTCAGGCATCGTTTTGGAGCTCC  
 TGAAGGAGGCCATGGTGGCCAGCCTCGGGGACACCAGGGGCTTCTGATTGACGGCTATCCTCGGGAGGT  
 GAAGCAAGGGGAAGAGTTCGGACGCAGGATTGGAGACCCACAGTTGGTGTCTGTATGGACTGCTCGGCA  
 GACACCATGACCAACCGCCTTCTCAAAGGAGCCGGAGCAGCCTGCCTGTGGACGACACCACCAAGACCA  
 TCGCCAAGCGCTAGAAGCCTACTACCGAGCGTCCATCCCGTGATCGCCTACTACGAGACAAAAACACA  
 GCTACACAAGATAAATGCAGAGGGAACACCAGAGGACGTTTTTCTCAACTCTGCACAGCTATTGACTCT  
 ATTTTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG206127 representing NM\_012093  
 Red=Cloning site Green=Tags(s)

MNTNDAKEYMARREIPQLFESLLNGLMCSKPEDPVEYLESCLQKVKELGGCDKVKWDTFVSQEKTLPLP  
 NGGQSRRSFLRNVMPGNSNFPYRRYDRLPPIHQFSIESDIDLSETAELIEEYEVDPTRPRPKIILVIGG  
 PGSGKGTQSLKIAERYGFQYISVSELLRKKIHSTSSNRKWSLIAKIITTGELAPQETTITEIKQKLMQIP  
 DEEGIVIDGFPDVAQALSFEDICTPDLVFLACANQRLKERLLKRAEQGRPDDNVKATQRRLMNFKQ  
 NAAPLVKYFQEKGLIMTFDADRDEDEVFYDISMAVDNKLFPNKEAAAGSSDLDPMSILDTGEIIDTGS  
 EDQDDQLNVFGEDTMGGFMEDLRKCKIIFIIGGPGSGKGTQCEKLVKYGFTHLSTGELLREELASESE  
 RSKLIRDIMERGDLVPSGIVLELLKEAMVASLGDTRGFLIDGYPREVKQGEFGRRIIDPQLVICMDCSA  
 DTMTNRLLRSRSSLPVDDTTKIAKRLEAYYRASIPVIAYYETKQLHKINAEGTPEDVFLQLCTAIDS  
 IF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_012093

**ORF Size:** 1686 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\\_012093.2](#), [NP\\_036225.2](#)

**RefSeq Size:** 3962 bp

**RefSeq ORF:** 1611 bp

**Locus ID:** 26289

**UniProt ID:** [Q9Y6K8](#)

**Cytogenetics:** 1p31.1

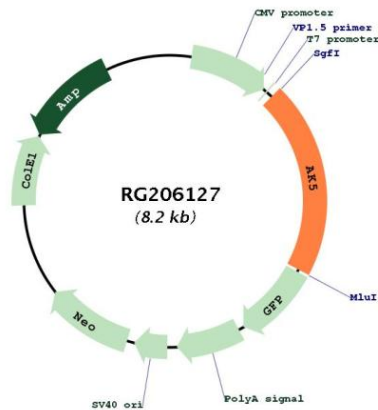
**Domains:** ADK

**Protein Families:** Druggable Genome

**Protein Pathways:** Metabolic pathways, Purine metabolism

**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 RG206127