

Product datasheet for **RG222241**

Adenylate kinase 5 (AK5) (NM_174858) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenylate kinase 5 (AK5) (NM_174858) 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:

>RG222241 representing NM_174858
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAACACCAACGATGCCAAGGAGTATCTGGCCCGAGGGAAATCCCTCAGCTTTTTGAGAGCCTTTTGA
 ATGGACTGATGTGTTCTAAGCCCGAAGATCCAGTAGAATACTTGGAAAGTTGTTTACAAAAAGTAAAGGA
 ACTGGGTGGCTGTGACAAGGTGAAATGGGATACATTTGTAAGCCAGGAAAAGAAGACCTTACCTCCACTA
 AATGGAGGACAGTCACGGAGATCCTTTCTAAGAAATGTAATGCCTGAAAACCTCAAACCTTTCCATATCGGC
 GGTATGACCGGCTCCCTCCAATCCATCAATTCTCCATAGAAAGTGACACGGATCTCTGAGACTGCAGA
 GTTGATTGAGGAGTATGAGGTTTTGATCCTACCAGACCTCGACCAAAAATCATTCTTGTATAGGTGGT
 CCAGGAAGTGAAAGGTAATCAGAGTTTGAATTTGCAGAACGATATGGATTCCAATACATTTCTGTGG
 GAGAATTATTAAGAAAGAAGATCCACAGTACCAGCAGCAATAGGAAATGGAGTCTTATTGCCAAGATAAT
 TACAACCTGGAGAATTGGCCACAGGAAACAACAATTACAGAGATAAAACAAAATTTGATGCAAATACCT
 GATGAAGAGGGCATTGTTATTGATGGATTTCCAAGAGATGTTGCCAGGCTCTATCTTTTGGAGACCAAA
 TCTGTACCCCGATTTGGTGGTATTCTGGCTTGTGCTAATCAGAGACTCAAAGAAAGATTACTGAAGCG
 TGCAGAACAGCAGGGCCGACCAGACGACAATGTAAGAGCTACCCAAAGGAGACTAATGAACCTTCAAGCAG
 AATGCTGCTCCATTGGTTAAATACTTCCAGGAAAAGGGGCTCATCATGACATTTGATGCCGACCGCGATG
 AGGATGAGGTGTTCTATGACATCAGCATGGCAGTTGACAACAAGTATTTCCAAACAAAGAGGCTGCAGC
 AGGTTCAAGTGACCTTGATCCTTCGATGATATTGGACTGGAGAGATCATTGATACAGGATCTGATTAT
 GAAGATCAGGGTGATGACCAGTTAAATGTATTTGGAGAGGACACTATGGGAGTTTCATGGAAGATTTGA
 GAAAGTGTAATAATTTTTCATAATTGGTGGCTCTGGCAAAGGCACACAGTGTGAAAAGCTGGT
 GGAAAAATATGGATTTACACATCTCTCAACTGGCGAGCTCTGCGTGAGGAACTGGCATCAGAATCTGAA
 AGAAGCAAATTGATCAGAGACATTATGGAACGTGGAGACCTGGTCCCTCAGGCATCGTTTTGGAGCTCC
 TGAAGGAGGCCATGGTGGCCAGCCTCGGGGACACCAGGGGCTTCTGATTGACGGCTATCCTCGGGAGGT
 GAAGCAAGGGGAAGAGTTCGGACGCAGGATTGGAGACCCACAGTTGGTGTCTGTATGGACTGCTCGGCA
 GACACCATGACCAACCGCCTTCTCAAAGGAGCCGGAGCAGCCTGCCTGTGGACGACACCACCAAGACCA
 TCGCCAAGCGCTAGAAGCCTACTACCGAGCGTCCATCCCGTGATCGCCTACTACGAGACAAAACACA
 GCTACACAAGATAAATGCAGAGGGAACACCAGAGGACGTTTTTCTCAACTCTGCACAGCTATTGACTCT
 ATTTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG222241 representing NM_174858
 Red=Cloning site Green=Tags(s)

MNTNDAKEYLARREIPQLFESLLNGLMCSKPEDPVEYLESCLQKVKELGGCDKVKWDTFVSQEKTLPLP
 NGGQSRRSFLRNVPENSNFYRRYDRLPPIHQFSIESDIDLSETAELIEEYEVDPTRPRPKIILVIGG
 PGSGKGTQSLKIAERYGFQYISVSELLRKKIHSTSSNRKWSLIAKIITTGELAPQETTITEIKQKLMQIP
 DEEGIVIDGFPRDVAQALSFEDICTPDLVFLACANQRLKERLLKRAEQGRPDDNVKATQRRLMNFKQ
 NAAPLVKYFQEKGLIMTFDADRDEDEVFYDISMAVDNKLFPNKEAAAGSSDLDPMSILDTGEIIDTGS
 EDQDDQLNVFGEDTMGGFMEDLRKCKIIFIIGGPGSGKGTQCEKLVKYGFTHLSTGELLREELASESE
 RSKLIRDIMERGDLVPSGIVLELLKEAMVASLGDTRGFLIDGYPREVKQGEFGRRIIDPQLVICMDCSA
 DTMTNRLLRSSSLPVDDTTKIAKRLEAYYRASIPVIAYYETKQLHKINAEGTPEDVFLQLCTAIDS
 IF

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_174858

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_174858.3](#)

RefSeq Size: 3257 bp

RefSeq ORF: 1689 bp

Locus ID: 26289

UniProt ID: [Q9Y6K8](#)

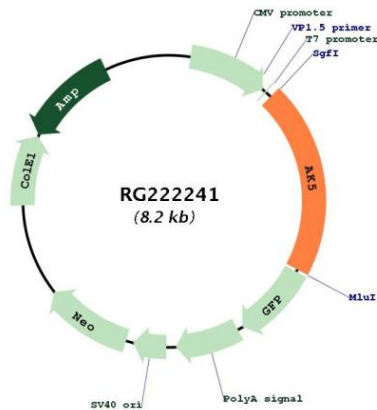
Cytogenetics: 1p31.1

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 RG222241