

## Product datasheet for **RR200526**

### Ak2 (NM\_030986) Rat Tagged ORF Clone

#### Product data:

Product Type: Expression Plasmids  
Product Name: Ak2 (NM\_030986) Rat Tagged ORF Clone  
Tag: Myc-DDK  
Symbol: Ak2  
Vector: pCMV6-Entry (PS100001)  
E. coli Selection: Kanamycin (25 ug/mL)  
Cell Selection: Neomycin  
ORF Nucleotide Sequence: >RR200526 representing NM\_030986  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGC**C

ATGGCTCCCAACGCGTTGGCTCCTGAACCGGAGCATCCGAAGGGCATCCGGGCCGTGTTGCTGGGGCCTC  
CCGGGGCTGGCAAGGGGACCCAGGCACCAAAATGGCTGAGAATTTCTGTCTGTCTGCTCACTGGCCACTGG  
GGACATGCTGAGAGCGATGGTAGCTTCAGGCTCGGAGCTGGGGAAAAAGCTGAAGGCGACAATGGATGCC  
GGAAAACTGGTGAAGTGAATGGTCTGTGGAGCTCATTGAGAAGAATTTGGAGACTCCTCCTGCAAAA  
ATGGCTTTCTTAGATGGCTTCCCTCGGACTGTGAAGCAGGCTGAAATGCTTGTGACCTCATGGATAA  
GAGGAAAGAGAAGCTCGATTCAGTCATCGAGTTCAGCATCCAGGACTCCCTGCTGATCCGGAGAATCAGG  
GGAAGGCTGATTCACCCCAAGAGTGGCCGGTCTACCATGAGGAGTTC AACCTCCAAAGGAGGCCATGA  
AAGATGATATCACTGGGAGCCCTGATCCGCAGGTGAGATGACAACGAGAAAGCCTTGAAGACCCGCT  
GGAGGCCTACCACACTCAGACCACTCCGCTTGTGGAATACTACAGGAAACGGGGCATTCACTGCGCCATT  
GATGCGTCCCAGACCCCTGACGTGGTGTGCAAGCATCTGGCAGCCTTCTCCAAGCCACATGTAAG  
ACTTGGTCATGTTTATC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR200526 representing NM\_030986  
Red=Cloning site Green=Tags(s)

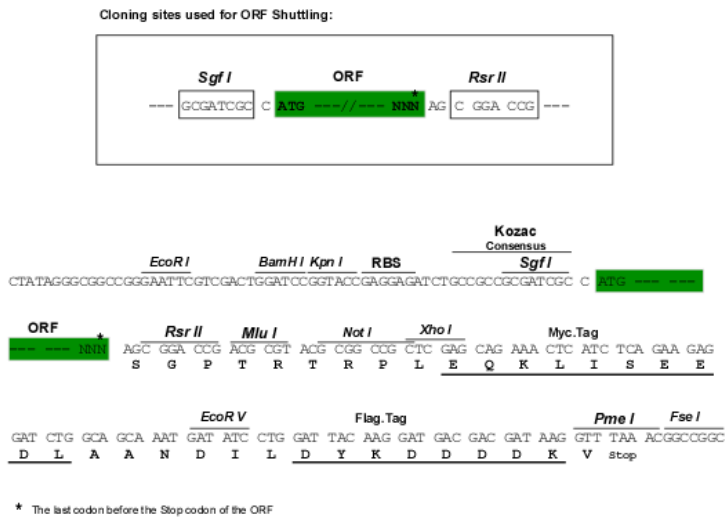
MAPNALAPEPEHPKGIKAVLLGPPGAGKGTQAPKLAENFCVCHLATGDMLRAMVASGSELGKCLKATMDA  
GKLVSDVMVELIEKNLETPSCKNGFLLDGFPRTVKQAEMDLLMDKRKEKLDVIEFSIQDSSLIRRI  
GRLIHPKSGRSYHEEFNPPKEAMKDDITGEPLIRRSDDNEKALKTRLEAYHTQTPLVEYYRKRGIHCAI  
DASQTPDVVFASILAFAFSKATCKDLVFMFI

**SGP**TRRRRLEQKLISEEDLAANDILDYKDDDDKV

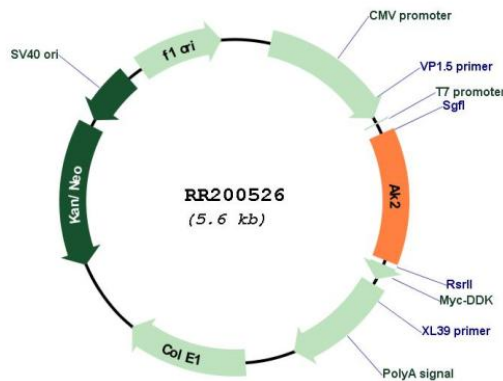


Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM\_030986

ORF Size: 717 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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_030986.2</a></u> , <u><a href="#">NP_112248.2</a></u>
<b>RefSeq Size:</b>	889 bp
<b>RefSeq ORF:</b>	720 bp
<b>Locus ID:</b>	24184
<b>Cytogenetics:</b>	5q36
<b>MW:</b>	26.8 kDa
<b>Gene Summary:</b>	Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. Plays an important role in cellular energy homeostasis and in adenine nucleotide metabolism. Adenylate kinase activity is critical for regulation of the phosphate utilization and the AMP de novo biosynthesis pathways. Plays a key role in hematopoiesis.[UniProtKB/Swiss-Prot Function]