

Product datasheet for **RR213135**

Akt2 (NM_017093) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Akt2 (NM_017093) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Akt2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR213135 representing NM_017093
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAATGAGGTATCTGTATCAAAAGAAGGCTGGCTCCACAAACGTGGTGAATACATCAAGACCTGGAGGC
 CCCGGTACTTCCTTCTGAAGAGTGATGGATCTTTTATTGGGTATAAAGAGAGACCTGAGGCCCCGACCA
 GACCTACCCCCCTTAACAATTTCTGTAGCAGAATGCCAGCTGATGAAGACTGAGAGGCCACGACCC
 AACACCTTTGTACATCGCTGCCTGCAGTGGACCACAGTATCGAGAGGACCTTCCATGTCGACTCTCCAG
 ATGAGAGGGAAGAGTGGATACGGGCTATCCAGATGGTAGCCAACAGTCTGAAGCAGCGGGCCCCGGGA
 GGATGCCATGGATTACAAGTGTGGCTCCCCAGTACTCTCCACATCTGAGATGATGGAGGTAGCGGTC
 AGCAAGGCACGGGCCAAAGTGACCATGAACGACTTCGATTATCTCAAACCTCTCGCAAGGGCACCTTCG
 GCAAAGTCATTCTAGTTCGAGAGAAGGCCACTGGCCGCTATTATGCCATGAAGATCTCGGAAGGAGGT
 CATCATTGCAAAGGATGAAGTCGCCACACAGTACAGAGAGCCGAGTCTACAGAATACAGGCACCCC
 TTCTTACAGCCCTGAAGTATGCCTTCCAGACCATGACCGCCTGTGCTTTGTGATGGAGTATGCCAACG
 GGGCGACCTGTTTTCCACCTCTCTCGGGAGCGAGTCTTACGGAGGATCGGGCAGCTTTTATGGTGC
 AGAGATTTGTGACGCTCTGGAGTACTTGCACCTCGACGGATGTGGTGTACCGCGACATCAAGCTGGAAAAC
 CTTATGCTGGACAAAGATGGCCACATCAAGTCACTGACTTTGGCTTGTCAAAGAGGGCATCAGTGATG
 GGGCCACCATGAAAACCTTCTGTGGTACCCCGGAGTACTTGGCGCTGAGGTGCTAGAGGACAATGACTA
 CGGGCGTGCAGTGGACTGGTGGGACTGGCGTGGTCAGTACGAGATGATGTGCGGCCCGCTGCCCTTC
 TACAACAGGACCAGAGCGCTCTTCGAGTCACTCCTCATGGAGGAGATCCGGTCCCACGCACGCTTG
 GGCCAGAGGCCAAGTCCCTGCTGGCTGGACTGCTCAAGAAGGACCCCAAGCAGAGGCTCGTGGGGTCC
 CAGTGATGCCAAGGAGGTATGGAGCATCGGTTCTTCTCAGCATCAACTGGCAGGATGTGGTACAGAAG
 AAGCTCTGCCACCTTCAAACCTCAGGTCACTTCAAGAAGTGACACAAGTACTTTGATGATGAATTCA
 CCGCCAGTCCATCAAAATCACACCCAGACCGATATGACAGCCTGGGCTCGCTGGAAGTGGACCAGCG
 CACACACTTCCCCAGTCTCTACTCAGCCAGCATCCGAGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR213135 representing NM_017093
 Red=Cloning site Green=Tags(s)

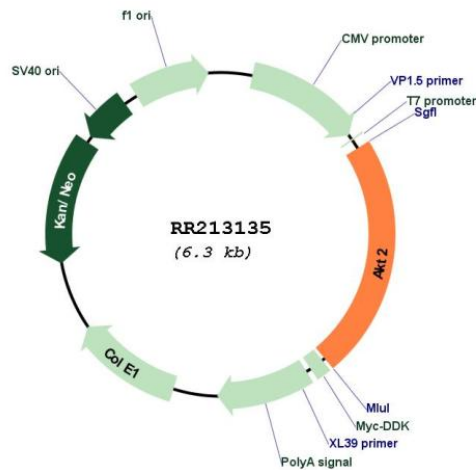
MNEVSVIKEGWLHKRGEYIKTWRPRYFLLKSDGSFIGYKERPEAPDQTLPLNNFSVAECQLMKTERPRP
 NTFVIRCLQWTTVIERTFHVDSPDEREEWIRAIQMVANSLKQRGPGEDAMDYKCGSPSDSSTSEMMEVAV
 SKARAKVTMNDFDYLKLLGKGTGKVIIVREKATGRYYAMKILRKEVIIAKDEVAHTVTESRVLQNTRHP
 FLTALKYAFQTHDRLCFVMEYANGGDLFFHL SRERVFTEDRARFYGAEIVSALEYLHSTDVVYRDIKLEN
 LMLDKDGHKIDTDFGLSKEGISDGATMKTF CGTPEYLAPEVLEDNDYGRAVDWWGLGVVMYEMMCGRLPF
 YNQDHERLFELILMEEIRFPRTLGP EAKSLLAGLLKKDPKQRLGGGSPDAKEVMEHRFFLSINWQDVVQK
 KLLPPFPQVTSEVDTRYFDDEF TAQSITITPPDRYDSLGSLELDQRTHFPQFSYSASIRE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Plasmid Map:


ACCN: NM_017093

ORF Size: 1443 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_017093.1](#), [NP_058789.1](#)

RefSeq Size: 1984 bp

RefSeq ORF: 1446 bp

Locus ID: 25233

UniProt ID: [P47197](#)

Cytogenetics: 1q21

MW: 55.5 kDa

Gene Summary: may be involved in phosphatidylinositol 3-kinase (PI3-K) mediated signaling [RGD, Feb 2006]