

Product datasheet for **MR221762**

Ak4 (NM_001177604) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ak4 (NM_001177604) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ak4
Synonyms:	Ak-3; Ak-4; Ak3; Ak3l1; AK 4; D4ErtD274e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR221762 representing NM_001177604 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTTCCAACCTCCTGCGCGGGTCATCCTCGGGCCGCCGGCTCTGGCAAGGGCACCCTTTGCGAAA
GGATCGCCAGAACTTTGGCCTCCAGCATCTCTCCAGCGGCCACTTGTTCGGGAGAACCTCAAGACCGG
CACGGAAGTTGGTGACGTGGCAAACAGTACCTAGAAAAAGGTCTTTTGGTTCCAGATCACGTGATCACA
CGCCTAATGATGTCAGAACTGGAGACTCGGAGTCCCAGCACTGGCTGTTAGATGGATCCCGAGGACAT
TAGTACAGGCAGAAGCCCTGGACGGAATCTGTGATGTGGACCTAGTAATCAGTTTGAATATTCCTTTTGA
GACACTTAAAGATCGTCTGAGCCGACGGTGGATTACCCTTCTAGCGGGAGGGTCTATAACCTGGACTTC
AACCCACCTCAAGTGCAGGGATTGATGACATCACTGGTGGACCACTGTCCAACAGGAAGATGATAAAC
CTGAAGCAGTTGCTGCCAGGCTAAGACGGTACAAGGATGCGGCAAACCAGTCATCGAACTGTACAAGAG
CCGTGGAGTGCTCCACCAGTTTCTGGGACGGAGACTAACAGAATCTGGCCTTATGTTTACACACTTTTC
TCCAACAAGATCACACCTATTCAATCCAAGAAGCCTAC

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR221762 representing NM_001177604
Red=Cloning site Green=Tags(s)

MASKLLRAVILGPPGSGKGTVCERIAQNFGLQHLSSGHLLRENLTGTEVGDVAKQYLEKGLLVPDHVIT
 RLMMSLELETRSAQHLLDGFPRTLVQAEALDGCIDVDLVISLNIPFETLKDRLSRRWIHPSSGRVYNLDF
 NPPQVQGIDDITGEPLVQQEDDKPEAVAARLRRYKDAAKPVIELYKSRGVLHQFSGTETNRIWPYVYTLF
 SNKITPIQSKEAY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001177604

ORF Size: 669 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_001177604.1](#), [NP_001171075.1](#)

RefSeq Size: 4949 bp

RefSeq ORF: 672 bp

Locus ID: 11639

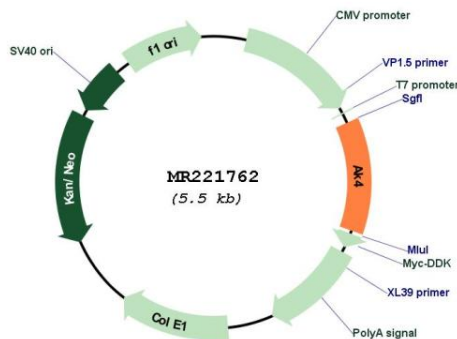
UniProt ID: [Q9WUR9](#)

Cytogenetics: 4 46.84 cM

MW: 25.1 kDa

Gene Summary: Involved in maintaining the homeostasis of cellular nucleotides by catalyzing the interconversion of nucleoside phosphates. Efficiently phosphorylates AMP and dAMP using ATP as phosphate donor, but phosphorylates only AMP when using GTP as phosphate donor. Also displays broad nucleoside diphosphate kinase activity.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR221762