

## Product datasheet for **MR221764**

### Ak4 (NM\_009647) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ak4 (NM_009647) 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:	>MR221764 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGGCTTCCAACCTCTGCGCGGGTCATCCTCGGGCCGCCGGCTCTGGCAAGGGCACCCTTTGCGAAA  
GGATCGCCAGAACTTTGGCTCCAGCATCTCCAGCGGCCACTTGTTCGGGAGAACCTCAAGACCGG  
CACGGAAGTTGGTGACGTGGCAAACAGTACCTAGAAAAAGGTCTTTGGTTCCAGATCACGTGATCACA  
CGCCTAATGATGTCAGAACTGGAGACTCGGAGTCCCAGCACTGGCTGTTAGATGGATCCCGAGGACAT  
TAGTACAGGCAGAAGCCCTGGACGGAATCTGTGATGTGGACCTAGTAATCAGTTTGAATATTCCTTTTGA  
GACACTTAAAGATCGTCTGAGCCGACGGTGGATTACCCTTCTAGCGGGAGGGTCTATAACCTGGACTTC  
AACCCACCTCAAGTGCAGGGATTGATGACATCACTGGTGGCCACTTGTCCAACAGGAAGATGATAAAC  
CTGAAGCAGTTGCTGCCAGGCTAAGACGGTACAAGGATGCGGCAAAACCAGTCATCGAACTGTACAAGAG  
CCGTGGAGTGCTCCACCAGTTTCTGGGACGGAGACTAACAGAATCTGGCCTTATGTTTACACACTTTTC  
TCCAACAAGATCACACCTATTCAATCCAAGAAGCCTAC

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR221764 protein sequence  
 Red=Cloning site Green=Tags(s)

MASKLLRAVILGPPGSGKGTVCERIAQNFGLQHLSSGHLLRENLTGTEVGDVAKQYLEKGLLVPDHVIT  
 RLMMSLELTRSAQHLLDGFPRTLVQAEALDGCIDVDLVISLNIPFETLKDRLSRRWIHPSSGRVYNLDF  
 NPPQVQGIDDITGEPLVQQEDDKPEAVAARLRRYKDAAKPVIELYKSRGVLHQFSGTETNRIWPVYVYTLF  
 SNKITPIQSKEAY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_009647

**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\\_009647.5](#), [NP\\_033777.1](#)

**RefSeq Size:** 4894 bp

**RefSeq ORF:** 672 bp

**Locus ID:** 11639

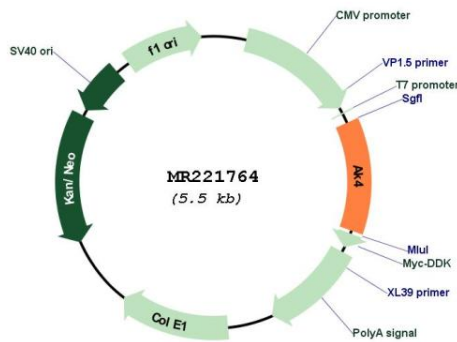
**UniProt ID:** [Q9WUR9](#)

**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 MR221764