

## Product datasheet for **MR228419**

### Ak1 (NM\_001198791) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Ak1 (NM\_001198791) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Ak1  
**Synonyms:** Ak-1; B430205N08Rik  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR228419 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAAGAGAAGCTGAAGAAGGCCAAGATCATCTTTGTGGTGGGCGGACCTGGCTCAGGAAAGGGCACCC  
 AGTGCGAGAAGATTGTACAGAAATATGGCTACACCCACCTGTCTACTGGGACCTGCTTCGGGCAGAAGT  
 CAGCTCTGGATCGGAGAGGGGCAAGAAGCTGTCGGCTATCATGGAGAAGGGAGAGCTAGTGCCACTGGAC  
 ACGGTGCTGGACATGCTCCGAGATGCTATGTTAGCCAAAGTGGATTCTTCCAATGGCTTCCTGATCGACG  
 GCTACCCGAGGGAGGTGAAACAGGGAGAAGAATTTGAACAGAAGATTGGACAGCCACACTGCTGCTGTA  
 TGTGGACGCAGGCGCCGAGACCATGACCCAACGACTCCTGAAGCGAGGGGAGACCAGTGGCCGCGTGGAT  
 GACAACGAGGAGACCATCAAGAAGCGGCTGGAGACTTATTACAATGCCACAGAACCTGTCATCTCCTTCT  
 ATGACAAGCGTGGCATTGTGCGCAAGGTCAATGCCAAGGCACGGTGGACTGTCTTCTGAGGTCTG  
 CACCTATCTTGACTCCCTGAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR228419 protein sequence  
 Red=Cloning site Green=Tags(s)

MEEKLKKAKIIFVVGPGSGKGTQCEKIVQKYGYTHLSTGDLLRAEVSSGSEKGLKSAIMEKDELVPLD  
 TVLDMLRDAMLAKVDSSNGFLIDGYPREVKQGEFEQKIGOPTLLL YVDAGAE TMTQRL LKRGETSGRVD  
 DNEETIKKRL ETYNATEPVISFYDKRGIVRKVNAEGTVDTVFSEVCTYLDLKL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001198791

ORF Size: 585 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\\_001198791.1](#), [NP\\_001185720.1](#)

RefSeq Size: 2088 bp

RefSeq ORF: 585 bp

Locus ID: 11636

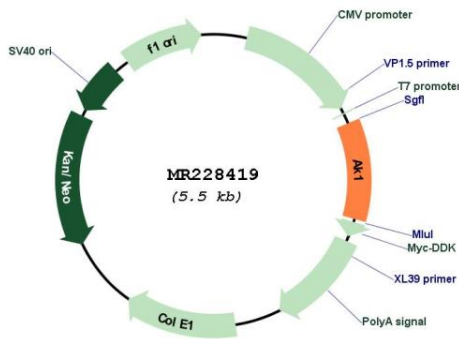
UniProt ID: [Q9R0Y5](#)

**Cytogenetics:** 2 22.09 cM

**MW:** 21.5 kDa

**Gene Summary:** Catalyzes the reversible transfer of the terminal phosphate group between ATP and AMP. Also possesses broad nucleoside diphosphate kinase activity. Plays an important role in cellular energy homeostasis and in adenine nucleotide metabolism (By similarity). May provide a mechanism to buffer the adenylate energy charge for sperm motility. [UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR228419