

Product datasheet for **MG224825**

Ak2 (NM_001033966) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ak2 (NM_001033966) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ak2
Synonyms:	Ak-2; D4ErtD220e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG224825 representing NM_001033966 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCCCAACGTGTTGGCTTCCGAACCGGAGATTCCGAAGGGCATCCGGGCCGTGTTGCTGGGGCCGC
CCGGGGCTGGCAAGGGGACGCAGGCACCCAACTGGCTGAAAACTTTTGTGTCTGTCAATTTGGCCACCGG
GGACATGCTGAGAGCCATGGTAGCTTCTGGCTCAGAGCTAGGAAAAAGCTGAAGGCGACAATGGATGCA
GGGAAACTGGTGAGTGACGAAATGGTTGTGGAGCTAATTGAGAAGAATTTGGAGACTCCTTCGTGCAAAA
ATGGCTTTCTTCTAGATGGCTTCCCTCGGACTGTGAGGCAGGCTGAAATGCTTGATGACCTCATGGAGAA
GAGGAAAAGAGAAGCTCGATTCAGTCATTGAGTTCAGCATCCAAGACTCGCTGCTGATCCGGAGGATCACT
GGGAGGCTGATTCACCCCAAGAGTGCCCGTCCCTACCATGAGGAATTCACCCTCCAAAGGAGCCCATGA
AAGATGATATCACTGGGGAGCCCTGATCCGCAGGTCAGATGACAACGAGAAAGCCTTGAAGACCCGCT
GGAGGCCATACCACACTCAGACCACTCCGCTCGTGGAGTACTACAGGAAACGCGGCATTCACTGCGCCATC
GATGCGTCCCAGACCCCTGACATCGTGTGGGAGCATCTGGCAGCCTTCTCCAAGCCACATGTAAG
ACCTGGTCATGTTTATC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG224825 representing NM_001033966
Red=Cloning site Green=Tags(s)

MAPNVLASEPEIPKGIKAVLLGPPGAGKGTQAPKLAENFCVCHLATGDMLRAMVASGSELGKKLKATMDA
 GKLVSDEMVELIEKNLETPSCKNGFLLDGFPRTVVRQAEMDDLMEKRKEKLDVIEFSIQDSSLIRIRIT
 GRLIHPKSGRSYHEEFNPPKEPMKDDITGEPLIRRSDDNEKALKTRLEAYHTQTTPLEVEYRKRGIHCAI
 DASQTPDIVFASILAASFATCKDLVMFI

TRTRPLE - GFP Tag - V

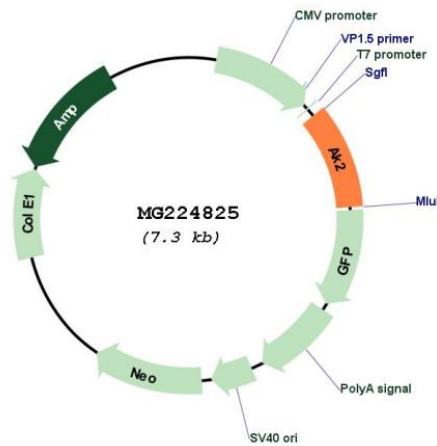
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001033966

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.
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:	<ol style="list-style-type: none">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_001033966.4 , NP_001029138.1
RefSeq Size:	1308 bp
RefSeq ORF:	720 bp
Locus ID:	11637
UniProt ID:	Q9WTP6
Cytogenetics:	4 62.62 cM
Gene Summary:	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]