

Product datasheet for **RG210614**

AK2 (NM_013411) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: AK2 (NM_013411) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: AK2
Synonyms: ADK2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG210614 representing NM_013411
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTCCAGCGTGCCAGCGGCAGAACCCGAGTATCCTAAAGGCATCCGGGCCGTGCTGCTGGGGCCTC
CCGGGGCCGGTAAAGGGACCCAGGCACCCAGATTGGCTGAAAATTCTGTGTCTGCCATTTAGCTACTGG
GGACATGCTGAGGGCCATGGTGGCTTCTGGCTCAGAGCTAGGAAAAAGCTGAAGCAACTATGGATGCT
GGGAAACTGGTGAGTGATGAAATGGTAGTGGAGCTCATTGAGAAGAATTTGGAGACCCCTTGTGCAAAA
ATGTTTTTCTTGGATGGCTTCCCTCGGACTGTGAGGCAGGCAGAAATGCTCGATGACCTCATGGAGAA
GAGGAAAGAGAAGCTTGATTCTGTGATTGAATCAGCATCCAGACTCTCTGCTGATCCGAAGAATCACA
GGAAGGCTGATTCACCCCAAGAGTGGCCGTTCCCTACCACGAGGAGTTCAACCCTCCTCAAAAGGCCATGA
AAGATGACATCACCGGGGAACCCCTTGATCCGTCGATCAGATGATAATGAAAAGGCCTTGAAAATCCGCCT
GCAAGCCTACCACACTCAAAACCCCACTCATAGAGTACTACAGGAAACGGGGGATCCACTCCGCCATC
GATGCATCCAGACCCCGATGTCGTGTTGCAAGCATCCTAGCAGCCTTCTCCAAGCCACATCC

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210614 representing NM_013411
 Red=Cloning site Green=Tags(s)

MAPSVPAAEPEYPKGIRAVLLGPPGAGKGTQAPRLAENFCVCHLATGDMLRAMVASGSELGKKLKATMDA
 GKLVSDEMVVLEIEKNLETPLCKNGFLLDGFPRTVRQAEMDDLMEKRKEKLDVIEFSIPDSSLIRRIT
 GRLIHPKSGRSYHEEFNPPKEPMKDDITGEPLIRRSDNEKALKIRLQAYHTQTTPLEIYYRKRGIHSAI
 DASQTPDVVFASILAAFSKATS

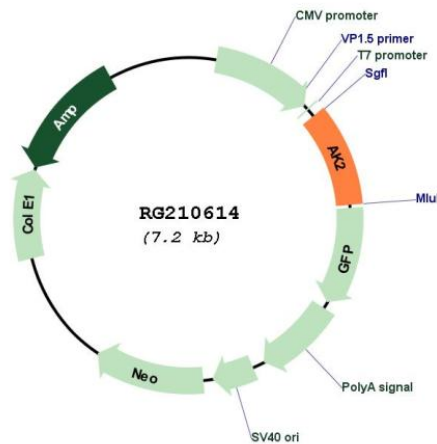
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_013411

ORF Size: 696 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_013411.5
RefSeq Size:	3606 bp
RefSeq ORF:	699 bp
Locus ID:	204
UniProt ID:	P54819
Cytogenetics:	1p35.1
Domains:	ADK, ADK_lid
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Purine metabolism
Gene Summary:	Adenylate kinases are involved in regulating the adenine nucleotide composition within a cell by catalyzing the reversible transfer of phosphate groups among adenine nucleotides. Three isozymes of adenylate kinase, namely 1, 2, and 3, have been identified in vertebrates; this gene encodes isozyme 2. Expression of these isozymes is tissue-specific and developmentally regulated. Isozyme 2 is localized in the mitochondrial intermembrane space and may play a role in apoptosis. Mutations in this gene are the cause of reticular dysgenesis. Alternate splicing results in multiple transcript variants. Pseudogenes of this gene are found on chromosomes 1 and 2.[provided by RefSeq, Nov 2010]