

## Product datasheet for **RG215130**

### Adenylate Kinase 1 (AK1) (NM\_000476) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Adenylate Kinase 1 (AK1) (NM\_000476) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Adenylate Kinase 1  
**Synonyms:** HTL-S-58j  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG215130 representing NM\_000476  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGGAAGAGAAGCTGAAGAAAACCAAGATCATCTTTGTGGTGGGTGGGCCTGGCTCAGGGAAGGGCACCC  
 AGTGTGAGAAGATCGTGCAGAAGTATGGCTACACCCACCTCTCCACCGGGGACCTCTGCGGTCCGAGGT  
 CAGCTCAGGCTCGCCAGGGCAAGAAGCTGTCGGAATCATGGAGAAGGGGCAGCTGGTCCACTGGAG  
 ACAGTGTGGACATGCTCCGGGATGCCATGGTGGCCAAAGTCAATACTTCCAAGGCTTCTGATTGATG  
 GCTACCCGCGGGAGGTGCAGCAAGGAGAAGAGTTTGGAGCAGGATTGGACAGCCACACTGCTGCTGTA  
 TGTGGACGAGCCCTGAGACCATGACCCAGCGGCTCTTGAAACGTGGAGAGACCAGCGGGCGTGTGGAC  
 GACAATGAGGAGACCATCAAAAAGCGGCTGGAGACCTATTACAAGGCCACAGAACCCTCATCGCCTTCT  
 ATGAGAAAACGTGGCATTGTGCGCAAGGTCAACGCTGAGGGCTCCGTGGACAGTGTCTTCTCCAGGTCTG  
 CACCCACCTGGACGCCCTAAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

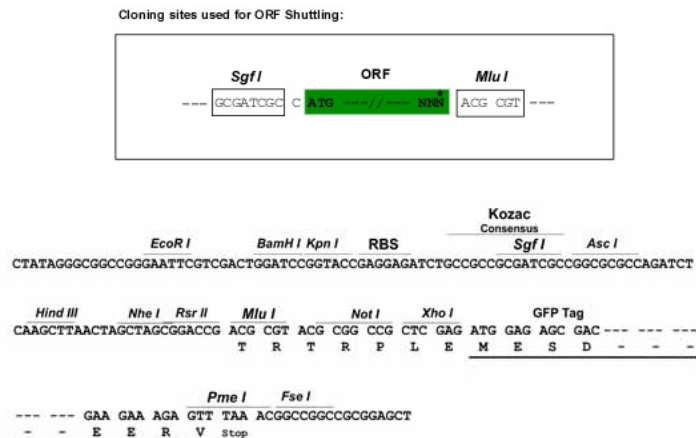
**Protein Sequence:** >RG215130 representing NM\_000476  
 Red=Cloning site Green=Tags(s)

MEEKLKKTKIIFVVGPGSGKGTQCEKIVQKYGYTHLSTGDLRSEVSSGSARGKKLSEIMEKGQLVPLE  
 TVLDMLRDAMVAKVNTSKGFLIDGYPREVQQGEFERRIGQPTLLL YVDAGPETMTQRLLRGETSGRVD  
 DNEETIKKRLITYKATEPVIAFYEKRGIVRKVNAEGSVDSVFSQVCTHLDALK

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI



**Cloning Scheme:**


**ACCN:** NM\_000476

**ORF Size:** 582 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\\_000476.2](#)

**RefSeq Size:** 2271 bp

**RefSeq ORF:** 585 bp

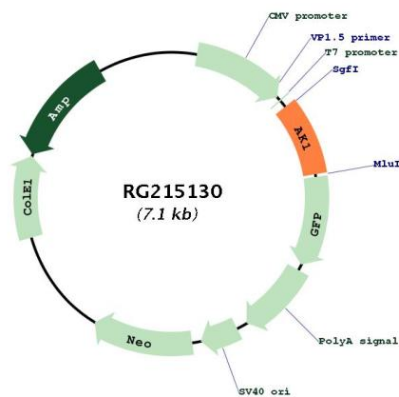
**Locus ID:** 203

**UniProt ID:** [P00568](#)

**Cytogenetics:** 9q34.11

Domains:	ADK
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Purine metabolism
Gene Summary:	This gene encodes an adenylate kinase enzyme involved in energy metabolism and homeostasis of cellular adenine nucleotide ratios in different intracellular compartments. This gene is highly expressed in skeletal muscle, brain and erythrocytes. Certain mutations in this gene resulting in a functionally inadequate enzyme are associated with a rare genetic disorder causing nonspherocytic hemolytic anemia. Alternative splicing of this gene results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Dec 2015]

### Product images:



Circular map for RG215130