

Product datasheet for **RC221584**

AK7 (NM_152327) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AK7 (NM_152327) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AK7
Synonyms:	AK 7; CFAP75; FAP75; SPGF27
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221584 representing NM_152327
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTGAAGAAGAGGAACTGCTGCTCTCACGGAGAAGTTATCCGGACCCAGAGGGTGTTTATAAAC
 TGTTGGATTCTACAGCAGCGGAAACATCGGGAAGTTTCTATCTAACTGTGTAGTTGGGGCTTCGCTTGA
 AGAAATTACAGAGGAAGAGGAAGAGGAAGTGAATAAGTCAGCTATGCTGGAAGCTTCTCAACCAAAA
 GTGAAGGAAGGCACATTCAGATTGTGGGCACGCTGTCCAAGCCTGACAGCCCAGCGGCTGACTTTGCGG
 TGGAGACGTACTTGCCATCTCTCGAGAAGACCTTCTCATGCGCCTGCTGGAGTGTGATGTTATTATTTA
 TAACATCACTGAGAGCTCACAGCAAATGGAGGAAGCCATCTGGCAGTCTCTGCACTCAGTGAAGAAGTC
 AGCCACTTTGAAAAGCGAAAGCTATTTATTTTACTGTGACGGTGTGACTTGGGCGCGCTCAAAGCCC
 TGGACCCGAGGATTCTGAGTTCATTACTGAAGAAGATTATCGAAGAAGAAAGTCTCATCTAATTT
 TCTGGACCACATAAATGTGAAAAATGGTTCTCAAATTTGAAAAAAGCCAGAAAATTTGAGCAGTAC
 GTAGTTGCTGCTGGACTCCAGTATGGAGCGGAAGGAGGCATGTTACACACATTTTTTAAGATGGCTTGGT
 TGGGCGAGATTCCTGCATTACCAGTTTTTGGCGATGGAACAAATGTAATTCACCAATCCATGTTCTTGA
 TCTAGCAGGAGTGATACAAAACGTCATAGATCACGTGCCAAAGCCTCACTACCTGGTTGCTGTTGATGAG
 TCTGTTACATACCTGGAAGACATAGTCAAGTGTATCAGTAAAAACTGGCCCTGGGAAAATCCAGAAAA
 TACCCAGAGAAAATGCATACCTAACCAAGGACTTAACGCAAGATTGTCTTGACCATTTACTGGTCAACTT
 AAGAAATGGAAGCGCTCTTTGTGAAGGAGAATTTAATATTCGATGGGCTGCCAAACAGGATTTGTGGAA
 AATATCAACACTATCCTCAAGGAGTACAAGCAAAGCAGAGGATTGATGCCAATCAAGATCTGCATTCTTG
 GTCCCCCTGCTGTGGGAAAATCCAGTATTGCTAAAGAATTGGCCAACTACTACAAACTGCATCACATCCA
 ACTGAAGGATGTCATTTCTGAAGCCATAGCAAAACTGGAGGCGATTGTTGCCCTAACGATGTAGGGGAA
 GGAGAAGAAGAAGTCGAAGAGGAAGAGGAGGAGGAATGTGGAAGATGCACAGGAGCTCCTAGATGGCA
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 GCTAAAAATCAATGCCTTGCAAGGAATCAAGGTTATATTTTGGATGGATTCCCAAAGACCTATGATCAAGCA
 AAAGACCTGTTCAATCAGGAAGATGAGGAGGAGGAAGATGATGTCAGAGGCAGAATGTTCCCTTTGATA
 AATTAATTATACCTGAATTCGTTTGTGCACTGGATGCTTCGGATGAGTTTCTGAAGGAGCGTGTGATAAA
 CCTTCTGAGAGCATCGTGGCGGGACCCACTACAGCCAAGACCGATTCTCCGGCTCTGAGCAACTAC
 CGGACATCAATATCGACGATGAGACTGTCTTCAACTATTTTGTGAAGTGAATTCACCCGATACATA
 TTGATGTAGGAAAATTTGAAGATGCTCAGAATAGACTTGTATCAAACAGCTCATCAAAGAGATTGGGGA
 GCCTCGAAATTTGGTTTAAACAGACGAAGAAAAGGCAGAAAGAGGAGCGGAAGGCTGCGGAGGAGCGGCTG
 GCCAGGGAGGCTGCTGAGGAAGCAGAACCGGAGCACCAGGAGGCCGTGGAGATGGCAGAGAAGATAGCTC
 GCTGGGAGGAGTGAATAAACGACTGGAGGAAGTAAAAGAGAAGAAAGAGAATTACTGGAGGCTCAGTC
 AATTCCTGAGAAAATTTAATGACCTATGTGATGCCAATCTTATTCAGGGCCTGAATGAATGTTGC
 AACGTCGACCCGAAGACCCTGTTGATTTCTGGCAGAATATCTTCAAGAACAATCCTGAAGCACAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221584 representing NM_152327
Red=Cloning site Green=Tags(s)

MAEEEEETAAALTEKVIRTQRVFINLLDSYSSGNIGKFLSNCVVGASLEEITEEEEEEDENKSAMLEASSTK
 VKEGTFQIVGTL SKPDSRPDF AVETYS AISREDLLMRLLCEDV I IYNI TESSQQMEEAIWAVSALSEEV
 SHFEKRKLF ILLSTVMTWARSKALDPEDSEVPFTEEDYRRRKSHPNFLDHINAEMV LKFGKKARKFAAY
 VVAAGLQYGAEGGMLHTFFKMAWLGEIPALPVFGDGTNVIPTIHVLDLAGVIQNVIDHVPKPHYL VAVDE
 SVHTLEDIVKCI SKNTGPGKI QKIPRENAYLTKDLTQDCLDHL L VNL RMEALFVKENFNIRWAAQTGFVE
 NINTILKEYKQSRGLMPIKICILGPPAVGKSSIAKELANYK LHHIQLKDVISEAIKLEI VAPNDVGE
 GEEEEEEEEENVEDAQELLDGIKESMEQNAGQLDDQYIIRFMKEK LKSMPCRNQGYILDGFPKTYDQA
 KDLFNQEDEEEEDDVRGRMFPFDKLI IPEFVCALDASDEF LKERVINLPESIVAGTHYSQDRFLRALSNY
 RDINIDDETVFN YFDELEIHP IHI DVGKLEDAQNRLAIKQLIKEIGEP RNYGLTDEEKAEERKAAEERL
 AREAAAAEEREHQEAVEMA EK IARWEEWNKRLEEVKREERELLEAQSIPLRNYLMTYVMP TLIQGLNECC
 NVRPEDPVDFLAEYLFKNNPEAQ

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8116_d12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_152327

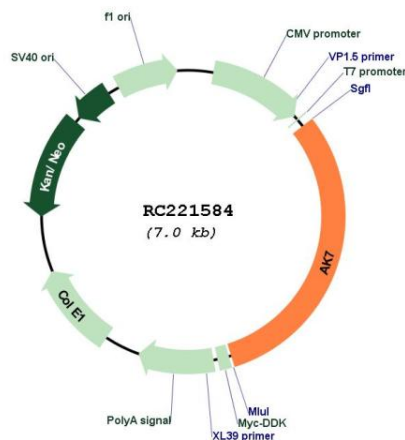
ORF Size: 2169 bp

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](#)

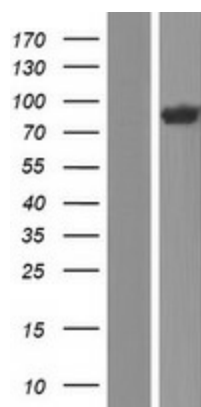
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<u>NM_152327.5</u>
RefSeq Size:	3318 bp
RefSeq ORF:	2172 bp
Locus ID:	122481
UniProt ID:	<u>Q96M32</u>
Cytogenetics:	14q32.2
Protein Families:	Druggable Genome
Protein Pathways:	Metabolic pathways, Purine metabolism
MW:	82.7 kDa
Gene Summary:	This gene encodes a member of the adenylate kinase family of enzymes. The encoded enzyme is a phosphotransferase that catalyzes the reversible phosphorylation of adenine nucleotides. This enzyme plays a role in energy homeostasis of the cell. Alternative splicing results in multiple transcript variants. Mutations in the mouse gene are associated with primary ciliary dyskinesia. [provided by RefSeq, Apr 2017]

Product images:



Circular map for RC221584



Western blot validation of overexpression lysate (Cat# [LY407632]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221584 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).