

## Product datasheet for **RC206021**

### APPL (APPL1) (NM\_012096) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	APPL (APPL1) (NM_012096) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	APPL
Synonyms:	APPL; DIP13alpha; MODY14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC206021 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGCCGGGATCGACAAGCTGCCATCGAGGAGACGCTGGAGGACAGCCCGACACAAGGTCTTTACTGG  
GTGATTTGAAGAAGATGCCACAGCTATTTCCAATATATGAACCAAGTTGTATCAAGCTATGCATCGGAT  
TTATGATGCACAGAATGAATTAAGTGCAGCAACACACCTGACCTCAAACTTTTAAAAAGAAATATGAAAA  
CAGCGTTTTCCATTGGGAGGTGATGATGAAGTTATGAGCTCTACATTGCAACAGTTTTCAAAAGTTATAG  
ATGAGCTTAGCTTTGTCATGCAGTGCTTTCAACTCAACTTGCTGATGCCATGATGTTCCCATTACCCA  
GTTTAAAGAAAGAGATCTGAAAGAAATACTAACATTAAGGAAGTATTTAGATTGCAAGTAATGATCAT  
GATGCTGCGATTAATAGATATAGCCGTTTATCAAAAAAGAGAAAATGACAAGGTGAAGTATGAAGTAA  
CAGAAGATGTGTACACATCCAGAAAGAAAACACCAGACCATGATGCATTTTTTTGTGCATTAATAC  
TCTTCAGTACAAGAAGAAAATAGCATTGTTAGAACCTCTACTTGGGTACATGCAAGCTCAGATAAGTTTC  
TTTAAGATGGGTTCTGAAAATCTTAATGAACAACCTGGAAGAATTTTTAGCTAATATTGGAACAAGCGTTC  
AGAATGTTTCGCAGGAAATGGACAGTGATATAGAGACCATGCAACAGACAATAGAGGATTTGGAAGTAGC  
CAGTGATCCCTTATATGTGCCTGACCCAGACCCCAAAATTTCTGTAAATCGAAATTTAACCCGAAAG  
GCTGGATACCTTAAATGCTAGGAATAAAACAGGCTTGGTGTCTACCTGGGACAGACAGTTTTACTTCA  
CGCAGGGTGAAATTTAATGAGTCAGGCCCGTGGGGATGTAGCAGGAGGCTGGCCATGGACATAGACAA  
CTGTTCAAGTATGGCTGTGGACTGTGAAGACAGACGATATTGTTTTAGATCACCTCTTCGATGGAAAA  
AAATCTTCAATTTTGAAGCAGAGAGTAAAAAGATCATGAAGAGTGGATCTGTACAATAAACAACATAT  
CTAAACAATATACTTAAGTGAATAATCCAGAGGAACTGCTGCAGAGTAAATCAATCAGCTCTGGAGC  
TGCACTCCTTCCCATCTTTCCAGCAGAGGCACGAGAGCCTGCGGCCAGCAGCAGGACAATCTCGGCCA  
CCGACAGCTCGAACAGCAGTTCAGGATCCTTAGGATCTGAGTCTACAAATTTGGCTGCCCTCTCTCTAG  
ATTCTCTGTTGCCCCAGACACCCCAATACAGTTTGACATAATTTCTCTGTGTGTGAAGATCAGCCTGG  
CCAGGCCAAAAGCCTTTGGCCAGGGAGGCAGGCGTACAAATCCATTTGGAGAATCTGGAGGAAGTACAAA  
TCTGAACTGAAGATTCTATTCTTCATCAGTTATTTATTGTCCGATTCCTTGGTTCAATGGAGGTGAAAT  
CAGATGACCATCCAGATGTTGTTTATGAACTATGCGCCAAATCTTAGCTGCCCGGCCATCCATAACAT  
CTTTCGTATGACAGAATCGATTTATTAGTCACTTGTGACTGTTTAAAGTTAATTGATCCACAGACACAA  
GTTACAAGGCTCACGTTTCCATTACCTTGTGTAGTTTTGTATGCTACACACCAGGAAAATAAGCGCCTTT  
TTGGATTTGTTCTTCGGACATCAAGCGGAGAAGTAAAAGTAATCTGTCATCAGTCTGCTATATATTTGA  
GTCAAACAATGAGGGGAAAAGATATGTGATTCTGTTGGACTGGCAAAACAGATAGCTTTGCATGCTGAA  
CTGGATCGTAGGGCATCAGAAAAACAAAAGAAAATAGAGAGAGTAAAAGAGAAGCAACAGAAAGAACTCA  
ATAAACAAAAACAGATTGAAAAGGACTTGGAAAGCAAAAGTCGGTTGATAGCTGCTTCCAGTAGACAAA  
CCAAGCCAGTAGTGAGGGCAGTTTGTGCTTAGCAGTAGCCAGTCAGAAGAGAGTGATTTGGGAGAA  
GGAGGAAAGAAGAGAGAATCAGAAGCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC206021 protein sequence  
Red=Cloning site Green=Tags(s)

MPGIDKLP I E E T L E D S P Q T R S L L G V F E E D A T A I S N Y M N Q L Y Q A M H R I Y D A Q N E L S A A T H L T S K L L K E Y E K  
 Q R F P L G G D D E V M S S T L Q Q F S K V I D E L S S C H A V L S T Q L A D A M M F P I T Q F K E R D L K E I L T L K E V F Q I A S N D H  
 D A A I N R Y S R L S K K R E N D K V K Y E V T E D V Y T S R K K Q H Q T M M H Y F C A L N T L Q Y K K K I A L L E P L L G Y M Q A Q I S F  
 F K M G S E N L N E Q L E E F L A N I G T S V Q N V R R E M D S D I E T M Q Q T I E D L E V A S D P L Y V P D P D T K F P V N R N L T R K  
 A G Y L N A R N K T G L V S S T W D R Q F Y F T Q G G N L M S Q A R G D V A G G L A M D I D N C S V M A V D C E D R R Y C F Q I T S F D G K  
 K S S I L Q A E S K K D H E E W I C T I N N I S K Q I Y L S E N P E E T A A R V N Q S A L E A V T P S P S F Q Q R H E S L R P A A G Q S R P  
 P T A R T S S S G S L G S E S T N L A A L S L D S L V A P D T P I Q F D I I S P V C E D Q P G Q A K A F G Q G R R T N P F G E S G G S T K  
 S E T E D S I L H Q L F I V R F L G S M E V K S D D H P D V V Y E T M R Q I L A A R A I H N I F R M T E S H L L V T C D C L K L I D P Q T Q  
 V T R L T F P L P C V V L Y A T H Q E N K R L F G F V L R T S S G R S E S N L S S V C Y I F E S N N E G E K I C D S V L A K Q I A L H A E  
 L D R R A S E K Q K E I E R V K E K Q Q K E L N K Q K I E K D L E E Q S R L I A A S S R P N Q A S S E G Q F V V L S S S Q S E S D L G E  
 G G K K R E S E A

TRTRPLEQKLISEEDLANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6140\\_f11.zip](https://cdn.origene.com/chromatograms/mk6140_f11.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\_012096

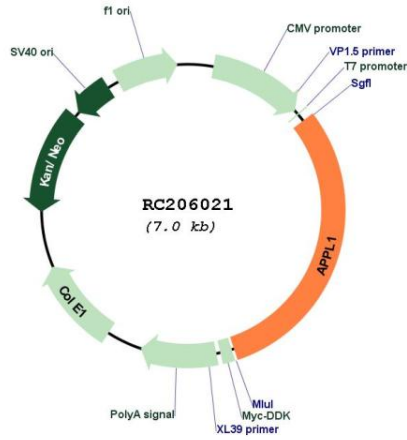
**ORF Size:** 2127 bp

**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](#)

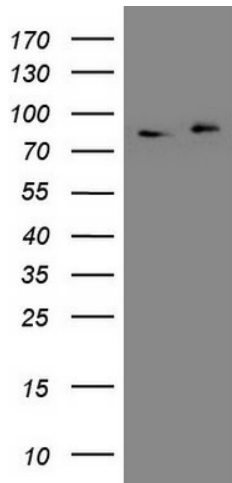
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_012096.3</a></u>
<b>RefSeq Size:</b>	6061 bp
<b>RefSeq ORF:</b>	2130 bp
<b>Locus ID:</b>	26060
<b>UniProt ID:</b>	<u><a href="#">Q9UKG1</a></u>
<b>Cytogenetics:</b>	3p14.3
<b>Domains:</b>	PH, PID
<b>Protein Pathways:</b>	Colorectal cancer, Pathways in cancer
<b>MW:</b>	79.7 kDa
<b>Gene Summary:</b>	The protein encoded by this gene has been shown to be involved in the regulation of cell proliferation, and in the crosstalk between the adiponectin signalling and insulin signalling pathways. The encoded protein binds many other proteins, including RAB5A, DCC, AKT2, PIK3CA, adiponectin receptors, and proteins of the NuRD/MeCP1 complex. This protein is found associated with endosomal membranes, but can be released by EGF and translocated to the nucleus. [provided by RefSeq, Jul 2008]

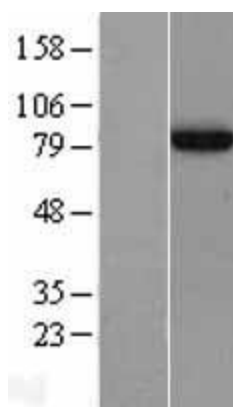
Product images:



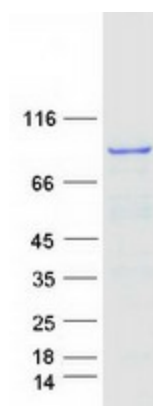
Circular map for RC206021



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY APPL1 (Cat# RC206021, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-APPL1 (Cat# [TA807768])(1:2000). Positive lysates [LY402145] (100ug) and [LC402145] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402145]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206021 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified APPL1 protein (Cat# [TP306021]). The protein was produced from HEK293T cells transfected with APPL1 cDNA clone (Cat# RC206021) using MegaTran 2.0 (Cat# [TT210002]).