

## Product datasheet for **RC215131**

### **ANKRD16 (NM\_001009941) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ANKRD16 (NM_001009941) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ANKRD16
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC215131 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCCAGCCCGGGACCCGCGGCCTCTGCAGGCTGGTGCAGGAGGGCCGGCTGCGCGCCCTGAAGG  
AGGAGCTGCAGGCGCCGGGGCTGCCGGGGCCGGCCGGGATACCTCCTGCACTGCGCCGCGGCCA  
CGGGCATCGGGACGTGCTGGCCTATCTGGCCGAGGCTGGGGCATGGACATCGAGGCCACCAACCGAGAC  
TACAAGCGCCTCTGCACGAGGCGCCTCCATGGCCACCGAGACTGCGTGGCTACCTGCTGGCCGGG  
GGCAGCGGTGACTGCCTGAAGAAGCCGACTGGACTCCTCTGATGATGGCTGCACAAGGAAGAAC  
GGGGTGATCCAGGAGCTGGTGAACATGGCGCCAATCCACTCCTGAAGAACAAGATGGCTGGAACAGT  
TTCCACATTGCCAGTCGAGAAGGCGACCCTCTGATCCTCCAGTACCTGCTCACTGTTTGCCAGGTGCCT  
GGAAGACAGAGAGCAAAATTAGAAGGACTCCTCTGCATACTGCAGCAATGCATGGCCATTTGGAGGCAGT  
CAAGGTGCTTCTTAAGAGGTGCCAATATGAACCAGACTACAGAGACAACCTGTGGCGTCACCGCCTTGATG  
GACGCAATCCAGTGTGGGCACATCGACGTCGCTAGGCTGCTCCTCGATGAACATGGGGCTGCTTTTCAG  
CAGAAGACAGCCTGGGTGCCAGGCTCTGCACAGGGCAGCTGTCACAGGGCAGGACGAAGCCATCCGATT  
CTTGGTCTCTGAACCTGGCGTCGATGTAGATGTGAGAGCCACATCAACCCACCTCACAGCACTTCATTAT  
GCAGCTAAGGAAGGACATACAAGTACAATTCAGACTCTTTATCCTTGGGAGCTGACATCAATTCTAAAG  
ATGAAAAAATCGATCAGCCCTGCATCTGGCCTGTGCAGGTGAGCACTTGGCCTGTGCCAAGTTTCTCCT  
GCAGTCGGGACTGAAGGATTCTGAAGACATCACGGGCACCCTGGCTCAGCAGCTCCCAAGGAGAGCAGAT  
GTCCTTCAAGGCTCTGGCCATAGCGCAATGACA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC215131 protein sequence  
Red=Cloning site Green=Tags(s)

MAQPGDPRRLCRLVQEGRLRALKEELQAAGGCPGAGDTLLHCAARHGHRDVLAYLAEAWGMDIEATNRD  
 YKRPLHEAASMGHRDCVRYLLGRGAAVDCLKKADWTPLMMACTRKNLGVIQELVEHGANPLLNKNDGWNS  
 FHIASREGDPLILQYLLTVCPGAWKTESKIRRTPLHTAAMHGHLAIVKLLKRCQYEPDYRDNCVGTALM  
 DAIQCGHIDVARLLLDEHGACLSAEDSLGAQALHRAAVTGQDEAIRFLVSELGVDVDVRATSTHLTALHY  
 AAKEGHTSTIQTLLSLGADINSKDEKNRSALHLACAGQHLACAKFLLQSLKDSIEDITGTLAQQLP RRAD  
 VLQGS GHSAMT

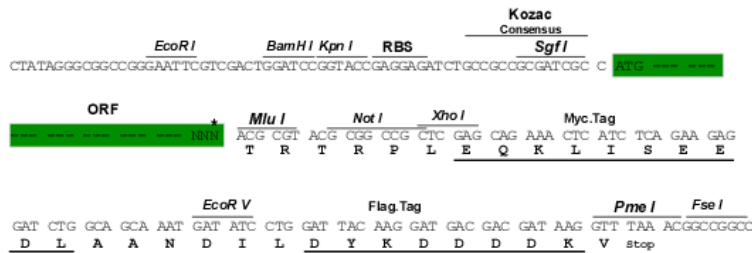
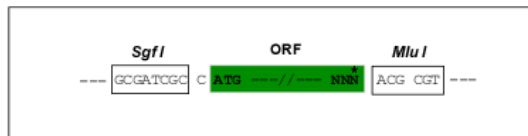
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6781\\_b02.zip](https://cdn.origene.com/chromatograms/mk6781_b02.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\_001009941

**ORF Size:** 1083 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\\_001009941.2](#), [NP\\_001009941.1](#)

**RefSeq Size:** 1683 bp

**RefSeq ORF:** 1086 bp

**Locus ID:** 54522

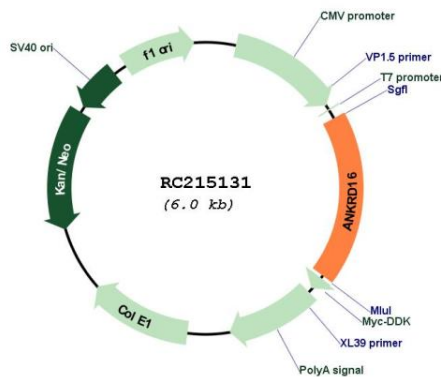
**UniProt ID:** [Q6P6B7](#)

**Cytogenetics:** 10p15.1

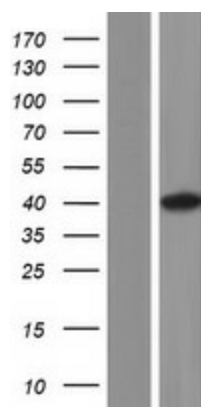
**MW:** 39.3 kDa

**Gene Summary:** Required to prevent the misactivation of serine (Ser) with tRNA(Ala) by promoting the hydrolysis of Ser-mischarged tRNA(Ala), thereby playing a role in translational fidelity. Binds directly to the catalytic domain of AARS/AlaRS and captures Ser that is misactivated by AARS/AlaRS, preventing the charging of Ser adenylates to tRNA(Ala) and precluding Ser misincorporation in nascent peptides.[UniProtKB/Swiss-Prot Function]

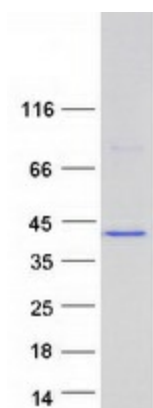
### Product images:



Circular map for RC215131



Western blot validation of overexpression lysate (Cat# [LY423159]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215131 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ANKRD16 protein (Cat# [TP315131]). The protein was produced from HEK293T cells transfected with ANKRD16 cDNA clone (Cat# RC215131) using MegaTran 2.0 (Cat# [TT210002]).