

## Product datasheet for **RC227564**

### **RAI14 (NM\_001145521) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	RAI14 (NM_001145521) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RAI14
Synonyms:	NORPEG; RAI13
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC227564 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAGAGCTTGAAGCGAAGTTCAGGAAGAGTGACACCAATGAGTGAACAAGAATGATGACCGGCTAC  
 TGCAGGCCGTGGAGAATGGAGATGCGGAGAAGGTGGCCTCACTGCTCGGCAAGAAGGGGGCCAGTGCCAC  
 CAAACACGACAGTGAGGGCAAGACCGCTTCCATCTTGCTGCTGCAAAAAGGACACGTGGAATGCCTCAGG  
 GTCATGATTACACATGGTGTGGATGTGACAGCCCAAGATACTACCGGACACAGCGCCTTACATCTCGCAG  
 CCAAGAACAGCCACCATGAATGCATCAGGAAGTGCTTCAGTCTAAATGCCAGCCGAAAGTGTTGACAG  
 CTCTGGGAAAACAGCTTTACATTATGCAGCGGCTCAGGGCTGCCTTCAAGCTGTGCAGATTCTCTGCGAA  
 CACAAGAGCCCCATAAACCTCAAAGATTTGGATGGGAATATACCGCTGCTGCTTGTGTACAAAATGGTC  
 ACAGTGAGATCTGTCACCTTCTCCTGGATCATGGAGCAGATGTCAATCCAGGAACAAAAGTGAAGAAC  
 TGCTCTCATGCTGGCCTGTGAGATTGGCAGCTCTAACGCTGTGGAAGCCTTAATTAAGGGTGCAGAC  
 CTAACCTTGTAGATTCTCTGGATACAATGCCTTACATTATTCCAAACTCTCAGAAAATGCAGGAATTC  
 AAAGCCTTCTATTATCAAAAATCTCTCAGGATGCTGATTTAAAGACCCCAACAAAACCAAGCAGCATGA  
 CCAAGTCTCTAAAATAAGCTCAGAAAGAAGTGGAACTCCAAAAAACGCAAGCTCCACCACCTCTATC  
 AGTCTACCCAGTTGAGTGATGTCTTCCCAAGATCAATAACTTCGACTCCACTATCGGGAAAGGAAT  
 CGGTATTTTTTGCTGAACCACCTTCAAGGCTGAGATCAGTCTATACGAGAAAACAAAGACAGACTAAG  
 TGACAGTACTACAGGTGCTGATAGCTTATTGGATATAAGTTCTGAAGCTGACCAACAAGATCTTCTCT  
 CTATTGCAAGCAAAAGTTGCTTCCCTTACCTTACACAATAAGGAGTTACAAGATAAATACAGGCCAAAT  
 CACCCAAGGAGGGGAAGCAGACCTAAGCTTTGACTCATACCATTCCACCCAAACTGACTTGGGCCCATC  
 CCTGGGAAAACCTGGTGAAACCTCTCCCCAGACTCCAAATCATCTCCATCTGTCTTAATACATTCTTTA  
 GGTAAATCCACTACTGACAATGATGTGAGAATTGCAACTGCAAGAGATTTTGAAGATCTACAGAAGA  
 GATTAGAGAGCTCTGAAGCAGAGAGAAAACAGCTACAGGTGCAACTCCAATCCCGAAGGGCAGAAGTGGT  
 ATGCTTAAACAACACTGAGATTTAGAGAACAGCTCTGACCTCAGCCAGAAAATTAAGAAAATCAGAGC  
 AAATACGAGGAGGCTATGAAAGAAGTCTTAGTGTGCAAGCAGATGAAACTCGGTCTTGTCTCACCTG  
 AAAGCATGGATAATTATCACATTTCCACGAGCTGAGGGTACGGAAGAGGAAAATAATGTGCTAAAGCA  
 GGATCTGCAGAATGCATTAGAAGAAAGTAAAGAAAATAAGAGAAAAGTGAAGAGATTAGAGGAAAACTG  
 GTAGAGAGGGAGAAAGGTACAGTGATTAAGCCACCTGTGGAAGAGTACGAGGAAATGAAAAGTTCATATT  
 GCTCTGTTATTGAGAATATGAATAAGGAGAAAGCATTGTTGTTGAGAAAATCCAAGAAGCCCAAGAAGA  
 AATCATGAAATTAAGACACACTAAAAAGTCAAGTACAGTACACAGGAAGCCAGTGTGAAGCTGAGGACATG  
 AAAGAAGCCATGAATAGGATGATAGATGAACTCAATAAACAGGTGAGCGAGCTGTACAGCTGTACAAAAG  
 AAGCCCAGGCTGAGCTGGAGGATTACAGGAAGAGGAAAATCTCTAGAGGATGTACAGCTGAATATATCCA  
 TAAAGCAGAGCATGAGAAAATGATGCAATTGACAAACGTGTCCAGGGCTAAAGCAGAAAGTGCAGTGTCT  
 GAAATGAAGTCTCAGTATTCAAAAGTGTGAATGAGTTGACCCAGCTCAAACACTGGTGGATGCACAAA  
 AAGAGAACTCTGTCTCTATCACAGAACATTTGCAAGTGATAACCACGCTGCGGACTGCAGCAAAAGAGAT  
 GGAAGAAAAAATAAGCAATCTTAAGGAACACCTTGAAGCAAGGAAGTGAAGTAGCAAAAGCTGGAGAAA  
 CAACTCTTAGAAGAGAAAAGCTGCTATGACTGATGCAATGGTACCTCGGTCTTCTATGAAAACTCCAGT  
 CATCCTTAGAGAGTGAAGTGAAGTGTGTTGGCATCGAAAATTAAGGAATCTGTGAAAGAGAAAAGAGAGGT  
 CCATTCAGAGGTTGTCCAGATTAGAAGTGAAGTCTCACAGGTGAAAAGAGAAAAGGAAAATATTCAGACT  
 CTCTTGAATCCAAGAGCAAGAAGTAAATGAACTTCTGCAAAAATCCAGCAAGCTCAGGAAGAAGTGTG  
 CAGAAATGAAAAGATACTCTGAGAGCTTCAAACACTGGAGGAAGATAAAGATAAAAAGATAAATGAGAT  
 GTCGAAGGAAGTACCAAATTAAGGAGGCCTTGAACAGCCTCTCCAGCTCTCTACTCAACAAGTCA  
 TCCAAAAGGCAGAGTCAGCAGCTGGAGGCGCTGCAGCAGCAAGTCAAACAGCTCCAGAACCAGCTGGCGG  
 AATGCAAGAAACAACACCAGGAGTCAATACAGTTTACAGAATGCATCTTCTGTATGCTGTGACGGGCCA  
 GATGGATGAAGATGTCCAGAAAGTACTGAAGCAAATCCTTACCATGTGTAAAACCAAGTCTCAAAAAGAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC227564 protein sequence  
Red=Cloning site Green=Tags(s)

MKSLKAKFRKSDTNEWNKNDRLQLAVENGDAEKVASLLGKKGASATKHDSEGKTAFLHAAAKGHVECLR  
 VMITHGVDVTAQDTTGHSAHLAAKNSHHECIRKLLQSKCPAESVDSSGKTALHYAAAQGCQLQAVQILCE  
 HKSPINLKDLDGNIPLLLAVQNGHSEICHFLLDHGADVNSRNKSGRTALMLACEIGSSNAVEALIKKGAD  
 LNLVDSLGYNALHYSKLSENAGIQSLLLSKISQDADLKTPTKPKQHDQVSKISSERSGTPKKRKAPPPPI  
 SPTQLSDVSSPRISITSTPLSGKESVFFAEPFFKAEISSIRENKDRLSDSTTGADSLLDISSEADQQDLLS  
 LLQAKVASLTLHNKELQDKLQAKSPKEAEDLSFDSYHSTQTDLGPSTLGPGETSPDSSKSSPSVLIHSL  
 GKSTTDNDVRIQQLEILQDLQKRLESSEAERKQLQVELQSRRAELVCLNNTIESENSDLSQKLKETQS  
 KYEEAMKEVLSVQKQMKLGLVSPESMDNYSHFELRVTEEEINVLKQDLQNALEESERNKEKVRLEEKL  
 VEREKGTVIKPPVEEYEEMKSSYCSVIENMNKEKAFLEKYQEAQEEIMKLDTLKQMTQEASDEAEDM  
 KEAMNRMIDELNKQVSELSQLYKEAQAELEDYRKRKSLDVDTAEYIHKAEHEKLMQLTNVSRKAEDALS  
 EMKSQYSKVLNELTQLKQLVDAQKENSVSITEHLQVITTLRTAAKEMEEKISNLKEHLASKEVEVAKLEK  
 QLLEEKAAMTDAMVPRSSYEKLSQSLSESVLASKLKEVKEKEKVHSEVVQIRSEVSVQVREKENIQT  
 LLKSKEQEVNELLQKFQQAQEELEAMKRYSESSKLEEDKDKKINEMSKVTKLKEALNSLSQLSYSTSS  
 SKRQSQLEALQQQVQLQNLAECKQHQEIVSYRMLLLYAVQGMDEDVQKVLKQILTMCKNQSQKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6155\\_h01.zip](https://cdn.origene.com/chromatograms/mk6155_h01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



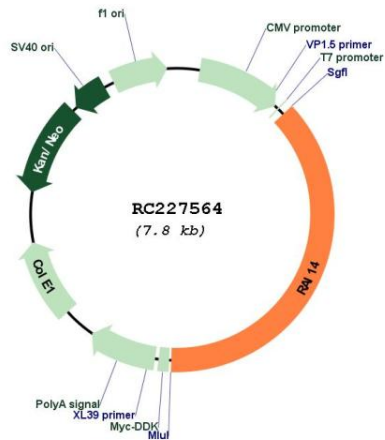
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001145521

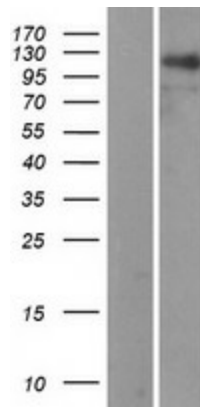
**ORF Size:** 2940 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	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>RefSeq:</b>	<u><a href="#">NM_001145521.1</a></u> , <u><a href="#">NP_001138993.1</a></u>
<b>RefSeq Size:</b>	5181 bp
<b>RefSeq ORF:</b>	2943 bp
<b>Locus ID:</b>	26064
<b>UniProt ID:</b>	<u><a href="#">Q9P0K7</a></u>
<b>Cytogenetics:</b>	5p13.2
<b>MW:</b>	110.1 kDa
<b>Gene Summary:</b>	<p>Plays a role in actin regulation at the ectoplasmic specialization, a type of cell junction specific to testis. Important for establishment of sperm polarity and normal spermatid adhesion. May also promote integrity of Sertoli cell tight junctions at the blood-testis barrier.</p> <p>[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for RC227564



Western blot validation of overexpression lysate (Cat# [LY428922]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227564 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).