

## Product datasheet for **RC206117**

### **PIWIL4 (NM\_152431) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PIWIL4 (NM_152431) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIWIL4
Synonyms:	HIWI2; MIWI2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RC206117 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGTGGAAAGAGCCCGAGTGAAGGCCAGAGGCATCGCCCGAGCCCAAGTCCACAGAAGTGGGGCGCA  
 TCCAAGCCTCGCATTGCCTAGATCTGTTGATCTTAGTAACAATGAAGCATCCTCTAGCAATGGCTTCTT  
 GGGAAACAAGCAGGATCTCAACCAACGATAAATATGGGATATCTTCTGGTATGCTGGAAGTACCTTCATG  
 GAAAGAGGTGTGAAAAACAAACAGGACTTTATGGATTTGAGTATCTGTACCAGAGAAAAATTGGCACATG  
 TGAGAAATTGTAACAGGTTCCAGTGGAAACCTGTGAAACTGGTTACAAACCTCTTTAACTTAGATTT  
 TCCCAAGACTGGCAGCTATACCAGTACCATGTGACATATATTCCAGATTTAGCATCTAGAAGGCTGAGA  
 ATTGCTTTACTTTATAGTCATAGTGAACTTTCAAACAAAGCAAAGCATTTCGACGGTGCCATCCTTTTTC  
 TGTCAAAAAGCTAGAAGAAAAGGTCACAGAGTTGTCAAGTGAACCTCAAAGAGGTGAGACTATAAAGAT  
 GACTATCACCTGAAGAGGGAGCTGCCATCAAGTTCTCCCGTGTGCATCCAGGTCTTCAATATCATCTTC  
 AGAAAGATCCTCAAAAAGTTGTCCATGTACAAATTTGGACGGAACCTCTATAATCCTTCAGAGCCAATGG  
 AAATTCCCAGCACAAATTTATCCCTTTGGCCTGGGTTTGCCATTTCTGTGTCAATTTTGAAGGAGAGCT  
 CCTGTTTAGTGCTGATGTGAGTTACAAAGTCTCCGGAATGAGACGGTTCTGGAATTCATGACTGCTCTC  
 TGTCAAAGAACTGGCTTGTCTGTTTCCACCCAGACGTGTGAGAAGCAGCTAATAGGGTCAATGTCCTTA  
 CAAGATACAATAACAGAACTACTCCATTGATGACATTGACTGGTCAGTGAAGCCACACACACCTTTTCA  
 GAAGCGGGATGGCACCAGATCACCTATGTGGATTACTACAAGCAGCAGTATGATATTACTGTATCGGAC  
 CTGAATCAGCCCATGCTTGTAGTCTGTTAAAGAAGAAGAAAAAGACAACAGTGAAGGCTCAGCTCGCCC  
 ACCTGATACCTGAGCTCTGCTTTCTAACAGGGCTGACTGACCAGGCAACATCTGATTTCCAGCTGATGAA  
 GGCTGTGGCTGAAAAGACACGTCTCAGTCTTCCAGGCCGAGCAGCGCCTGGCCAGGCTTGTGGACAAC  
 ATCCAGAGGAATACCAATGCTCGCTTTGAACTAGAGACCTGGGGACTGCATTTTGAAGCCAGATATCTC  
 TGACTGGCCGGATTGTGCCTTCAGAAAAAATTAATGCAAGACCACATATGTCAACCTGTGTCTGCTGC  
 TGACTGGTCCAAGGATATTCGAACCTGCAAGATTTTAAATGCACAGTCTTTGAATACCTGGTTGATTTTA  
 TGTAGCGACAGAAGTGAATATGTTGCCGAGAGCTTTCTGAACTGCTTGAAGAGTTGCAGGTTCCATGG  
 GATTTAATGTGGACTACCCAAAATCATAAAAGTACAAGAAAAATCCAGCTGCATTTGTTAGAGCTATACA  
 GCAATATGTTGATCCTGATGTTGAGCTGGTAAATGTGCATTTCTGCCTTCTAATCAGAAGACCTATTATGAT  
 TCCATTAATAAATATTTGAGCTCAGACTGCCAGTCCCAAGCCAATGTGTGCTTGTCTCGGACCTTGAATA  
 AACAGGGCATGATGATGAGTATCGCCACCAAGATCGCTATGCAGATGACTTGCAAGCTCGGAGGCGAGCT  
 GTGGGCTGTGAAATACCTTTAAAGTCCCTGATGGTGGTCCGATTTGATGTCTGTAAAGATGCACTCAGC  
 AAGGACGTGATGGTTGTTGGATGCGTGGCAAGTGTAAACCCAGAATCACCAGGTGGTTTTCCCGCTGTA  
 TCCTTCAGAGAACAATGACTGATGTTGCAGATTGCTTGAAGTTTTCATGACTGGAGCACTCAACAAATG  
 GTACAAGTACAATCATGATTTGCCAGCACGGATAAATGTGTACCGTGTGGTGTAGGGGATGGTCAGCTG  
 AAAACACTTATTGAATATGAAGTCCCACAGCTGCTGAGCAGTGTGGCAGAATCCAGCTCAATACCAGCT  
 CAAGACTGTCCGTGATTTGTTGTCAGGAAGAAGTGCATGCCACGATTTTACCAGAAATGAACCCACTGT  
 ACAGAACCCCACTTGGCACTTTGTGGATTGAGAAGCAACAGTAACGAATGGTATGACTTTTATCTG  
 ATCAGCCAGGTGGCTGCGGGGAAGTGTAGTCTACCTACTATAATGTCATCTATGATGACAACGGCT  
 TGAAGCCCGACCATATGCAGAGACTTACATTCAAATTGTGCCACCTGACTACAACCTGGCCGGGCATAGT  
 CAGTGTCCAGCACCATGTGATGCTCACAAGCTGACCTTTCTGGTGGCACAAGCATTATAAAGAA  
 CCCAGTCTGGAATTAGCCAACCATCTCTTCTACCTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC206117 protein sequence  
 Red=Cloning site Green=Tags(s)

MSGRARVKARGIARSPSATEVGR IQASPLPRSVL SNNEASSNGFLGTSRISTNDKYGISSGDAGSTFM  
 ERGVKNKQDFMDLSICTREKLAHVRNCKTGSSGIPVKLVNLFNLDLPQDWQLYQYHVITYIPDLASRRLR  
 IALLYSHSELSNKAKAFDGAIFLSQKLEEKVTELSSETQRGETIKMTITLKRELPSSSPVCIQVFNIIIF  
 RKILKLSMYQIGRNFYNPSEPMEIPQHKLSLWPGFAISVSYFERKLLFSADVSYKVLRNQTVLEFMTAL  
 CQRTGLSCFTQTCEKQLIGLIVLTRYNNRTYSIDDIDWSVKPTHTFQKRDGTEITYVDYKQYDITVSD  
 LNQPMLVSLKKKRNDNSEAQLAHLIPELCFLTGLTDQATSDFQMKAVAETRLSPSGRQQLARLVDN  
 IQRNTNARFELETWGLHFGSQISLTGRIVPSEKILMQDHCQPVAADWSKDIRTCKILNAQSLNTWLIL  
 CSDRTEYVAESFLNCLRRVAGSMGFNVDYPKIIKVQENPAAFVRAIQYVDPDVQLVMCILPSNQKTYD  
 SIKKYLSSDCPVPSQCVLARTLNKQGMMSIATKIAMQMTCKLGGELWAVEIPLKSLMVVGIDVCKDAL S  
 KDVMVVGCVASVNPRI TRWF SRCILQRTMTDVADCLKVFMTGALNKWYKYNHDL PARIIVYRAGVGDGQL  
 KTLIEYV PQLLSVAESSNTSSRLSVIVVRKCMRPF FTEMNRTVQNPPLGTVDSEATRNEWYDFYL  
 ISQVACRGTVSPTYYNVIYDDNGLKPDHMQR LTFKLCHLYNWP GIVSVPAPCQYAHKLTFLVAQSIHKE  
 PSLELANHLFY L

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6320\\_a03.zip](https://cdn.origene.com/chromatograms/mk6320_a03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

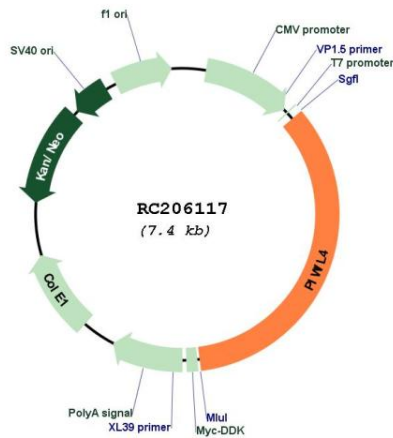
Cloning sites used for ORF Shuttling:



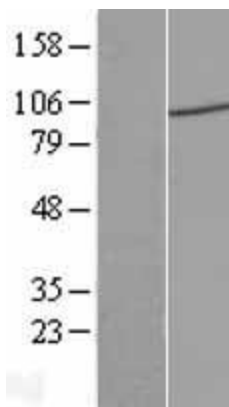
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_152431
<b>ORF Size:</b>	2556 bp
<b>OTI Disclaimer:</b>	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>
<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>	<a href="#">NM_152431.3</a>
<b>RefSeq Size:</b>	3214 bp
<b>RefSeq ORF:</b>	2559 bp
<b>Locus ID:</b>	143689
<b>UniProt ID:</b>	<a href="#">Q7Z3Z4</a>
<b>Cytogenetics:</b>	11q21
<b>Protein Pathways:</b>	Dorso-ventral axis formation
<b>MW:</b>	96.6 kDa
<b>Gene Summary:</b>	PIWIL4 belongs to the Argonaute family of proteins, which function in development and maintenance of germline stem cells (Sasaki et al., 2003 [PubMed 12906857]).[supplied by OMIM, Mar 2008]

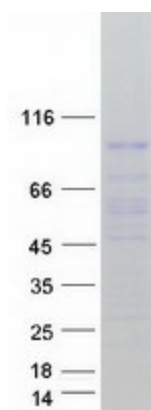
Product images:



Circular map for RC206117



Western blot validation of overexpression lysate (Cat# [LY407533]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206117 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PIWIL4 protein (Cat# [TP306117]). The protein was produced from HEK293T cells transfected with PIWIL4 cDNA clone (Cat# RC206117) using MegaTran 2.0 (Cat# [TT210002]).