

Product datasheet for **RC205469**

PIWIL1 (NM_004764) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIWIL1 (NM_004764) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIWIL1
Synonyms:	CT80.1; HIWI; MIWI; PIWI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC205469 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGACTGGGAGAGCCCGAGCCAGAGCCAGAGGAAGGGCCCGCGGTGAGGAGACAGCGCAGCTGGTGGCT
 CCACTGCCAGTCAGCAACCTGGTTATATTCAGCCTAGGCCTCAGCCGCCACCAGCAGAGGGGAATTATT
 TGGCCGTGGACGGCAGAGAGGAACAGCAGGAGGAACAGCCAAGTACAAGGACTCCAGATATCTGCTGGA
 TTTCAGGAGTTATCGTTAGCAGAGAGAGGTCGTCGTAGAGATTTTCATGATCTTGGTGTGAATACAA
 GGCAGAACCTAGACCATGTTAAAGAATCAAAAACAGGTTCTTCAGGCATTATAGTAAGGTTAAGCACTAA
 CCATTTCCGGCTGACATCCCGTCCCGTGGCCCTTATATCAGTATCACATTGACTATAACCCACTGATG
 GAAGCCAGAAGACTCCGTTGAGCTCTTCTTTTCAACACGAAGATCTAATTGGAAAGTGCATGCTTTTG
 ATGGAACGATATTATTTTACCTAAAAGACTACAGCAAAAGGTTACTGAAGTTTTAGTAAGACCCGGAA
 TGGAGAGGATGTGAGGATAACGATCACTTAAACAATGAACTTCCACCTACATCACCAACTTGTTCGAG
 TTCTATAATATTATTTTACAGGAGCTTTTGAATAATCATGAATTTGCAACAAATTGGACGAAATTATTATA
 ACCCAAATGACCAATTGATATTCCAAGTCACAGGTTGGTGAATTTGGCCTGGCTTCACTACTTCCATCCT
 TCAGTATGAAAACAGCATCATGCTCTGCACTGACGTTAGCCATAAAGTCCTTCGAAGTGAGACTGTTTTG
 GATTTTCATGTTCAACTTTTATCATCAGACAGAAGAACAATAAATTTCAAGAACAAGTTTCAAAGAACTAA
 TAGGTTTAGTTGTTCTTACCAAGTATAACAATAAGACATACAGAGTGGATGATATTGACTGGGACCAGAA
 TCCCAAGAGCACCTTTAAGAAAGCCGACGGCTCTGAAGTCAGCTTCTTAGAATACTACAGGAAGCAATAC
 AACCAAGAGATCACCGACTTGAAGCAGCCTGTCTTGGTCAGCCAGCCAAAGAGAAGGCGGGGCCCTGGGG
 GGACACTGCCAGGGCCTGCCATGCTCATTCTGAGCTCTGCTATCTTACAGGTCTAACTGATAAAATGCG
 TAATGATTTTAAAGTGATGAAAGACTTAGCCGTTATACAAGACTAACTCCAGAGCAAAGGCAGCGTGAA
 GTGGGACGACTCATTGATTACATTCATAAAAACGATAATGTTCAAAGGGAGCTTCGAGACTGGGTTTGA
 GCTTTGATTCCAACTTACTGTCCTTCTCAGGAAGAATTTTCAAACAGAAAAGATTACCAAGGTGGAAA
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 ATCTATTTAAAGTTACACCAGCCATGGCATGCAATGAAAAAGCAATAATGATTGAAGTGGATGACAG
 AACTGAAGCCTACTTAAGAGTCTTACAGCAAAAGGTCACAGCAGACCCAGATAGTTGTCTGTCTGTTG
 TCAAGTAATCGGAAGGACAAATACGATGCTATTAATAAATACCCGTGTACAGATTGCCCTACCCCAAGTC
 AGTGTGTGGTGGCCGAACCTTAGGCAACAGCAAAGTGTATGGCCATTGCTACAAAGATTGCCCTACA
 GATGAACTGCAAGATGGGAGGAGAGCTCTGGAGGGTGGACATCCCCCTGAAGCTCGTGATGATCGTTGGC
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 GGATGACCCGCTGGTTCTCACGCTGCATATTTACAGGATAGAGGACAGGAGCTGGTAGATGGGCTCAAAGT
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 CGCGATGGCGTAGGAGACGGCCAGCTGAAAACACTGGTGAACACGAAGTCCACAGTTTTTGGATTGTC
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 ACAATGTCATCTATGACAACAGCGGCTGAAGCCAGACCACATACAGCGCTTGACCTACAAGCTGTGCCA
 CATCTATTACAAGTGGCCAGGTGTCATTGCTGTTCTGCTCCTTGCCAGTACGCCACAAGCTGGCTTTT
 CTGTTGGCCAGAGTATTCACAGAGAGCAAAATCTGCTACTGTCAAACCGCCTTTACTACCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205469 protein sequence
 Red=Cloning site Green=Tags(s)

MTGRARARARGRARGQETAQLVGSTASQQPGYIQPRPQPPPAEGELFGRGRQRGTAGGTAKSQGLQISAG
 FQELSLAERGGRRRDFHDLGVNTRQNL DHVKESTGSSGIIVRLSTNHFR LSRPQWALYQYHIDYNPLM
 EARRLR SALLFQHEDLIGKCHAFDGTILFLPKRLQQKVTEVFSKTRNGEDVRITITLTNLPPTSPTCLQ
 FYNIIFRRLKIMNLQQIGRNYNPNPDIIPSHRLVIWPGFTTSILQYENSIMLCTDVSHKVLRS ETVL
 DFMFNFYHQTEEHKFEQVSKELIGLVLTKYNNKTYRVDDIDWDQNPKSTFKKADGSEVSFLEYRKYQ
 NQEITDLKQPVLVSQPKRRRGGTLPGPAMLIPELCYLTGLTDKMRNDFNVMKDLAVHTRLTPEQRQRE
 VGRLLIDYIHKNDNVQREL RDWGLSFDNLLSFSGRILQTEKIHQGGKTFDYNPQFADWSKETRGAPLISV
 NPLDNWLLIYTRRNYEAANSLIQNLFKVTPAMGMQMKKAIMIEVDDRTEAYLRVLQQKVTADTQIVVCLL
 SSNRKDKYDAIKKYPCTDCPTPSQC VVARTLGKQQTVMATKIALQMCKMGGELWRVDIPLKLVMI VG
 IDCYHDMTAGRRSIAGFVASINEGMTRWFSRCIFQDRGQELVDGLKVCLQAALRAWNSCNEYMPSRIIVY
 RDGVGDGQLKTLVNYEVPQFLDCLKSIGRGNPRLTVIVVKKRVNTRFFAQSGGRLQNPLPGTVIDVEVT
 RPEWYDFFIVSQAVRSGSVSPHYNVIYDNSGLKPDHIQRLTYKLCHIYNNWPGVIRVPAPCQYAHKLAF
 LVGQSIHREP NLSLNRLYYL

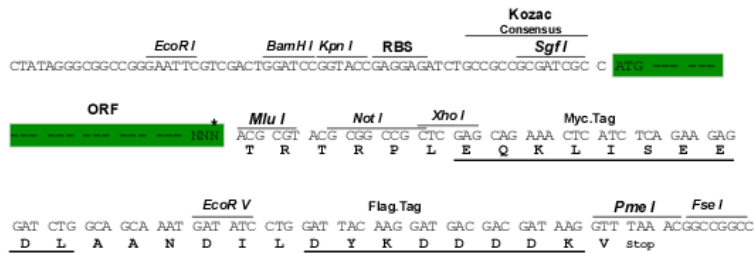
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6141_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

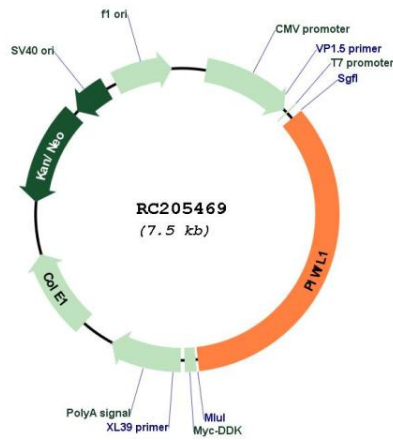
Cloning sites used for ORF Shuttling:



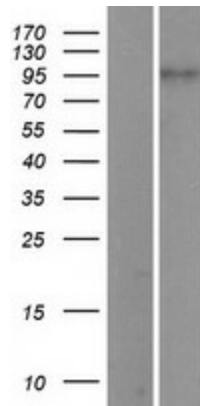
* The last codon before the Stop codon of the ORF

ACCN:	NM_004764
ORF Size:	2583 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:	NM_004764.2
RefSeq Size:	3591 bp
RefSeq ORF:	2586 bp
Locus ID:	9271
UniProt ID:	Q96J94
Cytogenetics:	12q24.33
Protein Pathways:	Dorso-ventral axis formation
MW:	98.5 kDa
Gene Summary:	This gene encodes a member of the PIWI subfamily of Argonaute proteins, evolutionarily conserved proteins containing both PAZ and Piwi motifs that play important roles in stem cell self-renewal, RNA silencing, and translational regulation in diverse organisms. The encoded protein may play a role as an intrinsic regulator of the self-renewal capacity of germline and hematopoietic stem cells. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2010]

Product images:



Circular map for RC205469



Western blot validation of overexpression lysate (Cat# [LY401497]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205469 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).