

## Product datasheet for **RG231422**

### **PIWIL1 (NM\_001190971) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PIWIL1 (NM_001190971) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PIWIL1
Synonyms:	CT80.1; HIWI; MIWI; PIWI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG231422 representing NM\_001190971  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACTGGGAGAGCCCGAGCCAGAGCCAGAGGAAGGGCCCGCGGTGAGGAGACAGCGCAGCTGGTGGGCT  
 CCACTGCCAGTCAGCAACCTGGTTATATTCAGCCTAGGCCTCAGCCGCCACCAGCAGAGGGGGAATTATT  
 TGGCCGTGGACGGCAGAGAGGAACAGCAGGAGGAACAGCCAAGTACAAGGACTCCAGATATCTGCTGGA  
 TTT**CAGGAGTTATCGTTAGCAGAGAGAGGTCGTCTGATAGATTTTCATGATCTTGGTGTGAATACAA**  
**GGCAGAACCTAGACCATGTTAAAGAATCAAAAACAGGTTCTTCAGGCATTATAGTAAGGTTAAGCACTAA**  
**CCATTTCCGGCTGACATCCCGTCCCGTGGCCCTTATATCAGTATCACATTGACTATAACCCACTGATG**  
**GAAGCCAGAAGACTCCGTTGAGCTCTTCTTTTCAACACGAAGATCTAATTGGAAAGTGCATGCTTTTG**  
**ATGGAACGATATTATTTTACCTAAAAGACTACAGCAAAAGGTTACTGAAGTTTTAGTAAGACCCGGAA**  
**TGGAGAGGATGTGAGGATAACGATCACTTAAACAATGAACTTCCACCTACATCACCAACTTGTTTGCAG**  
**TTCATAATATTATTTTTCAGGAGCTTTTGAAAATCATGAATTTGCAACAAATTGGACGAAATTATTATA**  
**ACCCAAATGACCCAATTGATATTCCAAGTCACAGGTTGGTGAATTTGGCCTGGCTTCACTACTTCCATCCT**  
**TCAGTATGAAAACAGCATCATGCTCTGCACTGACGTTAGCCATAAAGTCCTTCGAAGTGAGACTGTTTTG**  
**GATTTTCATGTTCAACTTTTATCATCAGACAGAAGAACAATAAATTTCAAGAACAAGTTTCCAAAGAACTAA**  
**TAGGTTTAGTTGTTCTTACCAAGTATAACAATAAGACATACAGAGTGGATGATATTGACTGGGACCAGAA**  
**TCCCAAGAGCACCTTTAAGAAAGCCGACGGCTCTGAAGTCAGCTTCTTAGAATACTACAGGAAGCAATAC**  
**AACCAAGAGATCACCGACTTGAAGCAGCCTGTCTTGGTCAGCCAGCCCAAGAGAAGGCGGGGCCCTGGGG**  
**GGACACTGCCAGGGCCTGCCATGCTCATCTGAGCTCTGCTATCTTACAGGCTAACTGATAAAATGCG**  
**TAATGATTTTAAAGTGATGAAAGACTTAGCCGTTACATAAAGACTAACTCCAGAGCAAAGGCAGCGTGAA**  
**GTGGGACGACTCATTGATTACATTCATAAAAACGATAATGTTCAAAGGGAGCTTCGAGACTGGGTTTGA**  
**GCTTTGATTCCAACTTACTGTCCTTCTCAGGAAGAATTTTGCAAACAGAAAAGATTACCAAGGTGGAAA**  
**AACATTTGATTACAATCCACAATTTGCAGATTGGTCCAAAGAAAACAAGAGGTGCACCATTAATTAGTGT**  
**AAGCCACTAGATAAAGTGTGATCTATACGCGAAGAAATTAAGAGCAGCAATTCATTGATACAAA**  
**ATCTATTTAAAGTTACACCAGCCATGGCATGCAAAATGAGAAAAGCAATAATGATTGAAGTGGATGACAG**  
**AACTGAAGCCTACTTAAGAGTCTTACAGCAAAAGGTCACAGCAGACCCAGATAGTTGTCTGTCTGTTG**  
**TCAAGTAATCGGAAGGACAAATACGATGCTATTAATAAATACCTGTGTACAGATTGCCCTACCCCAAGTC**  
**AGTGTGTGGTGGCCGAACCTTAGGCAAAACAGCAAACTGTCATGGCCATTGCTACAAAGATTGCCCTACA**  
**GATGAACTGCAAGATGGGAGGAGAGCTCTGGAGGGTGGACATCCCCCTGAAGCTCGTGATGATCGTTGGC**  
**ATCGATTGTTACCATGACATGACAGCTGGGCGGAGGTCATCGCAGGATTTGTTGCCAGCATCAATGAAG**  
**GGATGACCCGCTGGTTCTCACGCTGCATATTTTCAGGATAGAGGACAGGAGCTGGTAGATGGGCTCAAAGT**  
**CTGCCTGCAAGCGGCTCTGAGGGCTTGAATAGCTGCAATGAGTACATGCCAGCCGGATCATCGTGTAC**  
**CGCGATGGCGTAGGAGACGGCCAGCTGAAAACACTGGTGAACACGAAGTCCACAGTTTTTGGATTGTC**  
**TAAAATCCATTGGTAGAGGTTACAACCCTAGACTAACGGTAATTGTTGGTGAAGAAAAGAGTGAACACCAG**  
**ATTTTTGCTCAGTCTGGAGGAAGACTTCAGAATCCACTTCTGGAACAGTTATTGATGTAGAGGTTACC**  
**AGACCAGAATGGTATGACTTTTTATCGTGAGCCAGGCTGTGAGAAGTGGTAGTGTTCCTCCACACATT**  
**ACAATGTCATCTATGACAACAGCGGCTGAAGCCAGACCACATACAGCGCTTGACCTACAAGCTGTGCCA**  
**CATCTATTACAACCTGGCCAGTAAGTGCTTCTACTTGT**

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:** >RG231422 representing NM\_001190971  
 Red=Cloning site Green=Tags(s)

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MTGRARARARGRARGQETAQLVGSTASQQPGYIQPRPQPPPAEGELFGRGRQRGTAGGTAKSQGLQISAG
FQELSLAERGGRRRDFHDLGVNTRQNLDHVKESKTGSSGIIVRLSTNHFRLTSRPQWALYQYHIDYNPLM
EARRLRSALLFQHEDLIGKCHAFDGTILFLPKRLQQKVTEVFSKTRNGEDVRITITLTNELPPTSPTCLQ
FYNIIFRRLKIMNLQQIGRNYNPNPDIIPSHRLVIWPGFTTSILQYENSIMLCTDVSHKVLRSETVL
DFMFNFYHQTEEHKFQEQVSKELIGLVVLTKYNNKTYRVDIDWDQNPKSTFKKADGSEVSFLEYRKYQ
NQEITDLKQPVLVSQPKRRRGGGTLPGPAMLPELICYLTGLTDKMRNDFNVMKDLAVHTRLTPEQRQRE
VGRLIDYIHKNDNVQREL RDWGLSFDSNLLSFSGRILQTEKIHQGGKTFDYNPQFADWSKETRGAPLISV
KPLDNWLLIYTRRNYEAANSLIQNLFKVTPAMGMQMRKAIMIEVDDRTEAYLRVLQQKVTADTQIVVCLL
SSNRKDKYDAIKKYLCTDCPTPSQCVCVARTLGKQQTVMATKIALQMCKMGGELWRVDIPLKLVMIVG
IDCYHDMTAGRRSIAGFVASINEGMTRWFSRCIFQDRGQELVDGLKVCLQAALRAWNSCNEYMPSRIIVY
RDGVGDGQLKTLVNYEVPQFLDCLKSIGRGNPRLTVIVVKKRVNTRFFAQSGGRLQNPLPGTVIDVEVT
RPEWYDFFIVSQAVRSGSVSPHYNVIYDNSGLKPDHIQRLTYKLCHIYYNWPVSASTC
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001190971

**ORF Size:** 2487 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\\_001190971.2](#)

**RefSeq Size:** 2797 bp

**RefSeq ORF:** 2490 bp

**Locus ID:** 9271

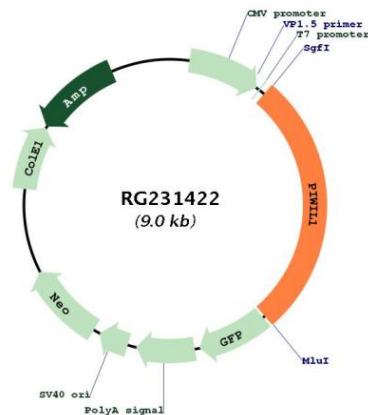
**UniProt ID:** [Q96J94](#)

**Cytogenetics:** 12q24.33

**Protein Pathways:** Dorso-ventral axis formation

**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 RG231422