

## Product datasheet for **RG214926**

### **RIZ1 (PRDM2) (NM\_001007257) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RIZ1 (PRDM2) (NM_001007257) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PRDM2
Synonyms:	HUMHOXY1; KMT8; KMT8A; MTB-ZF; RIZ; RIZ1; RIZ2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214926 representing NM_001007257 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGAGATTCTGCAGAAGGTCTAAAGAAGACGAAGAGAAGCCTTCAGCCTCAGCACTTGAGCAGCCGG  
CCACCCTCAGGAGGTGGCCAGTCAGGAGGTGCCTCCAGAAGTACCAACCCCTGCCCTGCCTGGGAGCC  
ACAGCCAGAACCAGACGAGCGATTAGAAGCGGCAGCTTGTGAGGTGAATGATTTGGGGGAAGAGGAGGAG  
GAGGAAGAGGAGGAGGATGAAGAAGAAGAAGAAGATGATGATGATGATGAGTTGGAAGACGAGGGGAAG  
AAGAAGCCAGCATGCCAAATGAAAATCTGTGAAAGAGCCAGAAATACGGTGTGATGAGAAGCCAGAAGA  
TTTATTAGAGGAACCAAAAACAACCTTCAGAAGAACTCTTGAAGACTGCTCAGAGGTAACACCTGCCATG  
CAAATCCCAGAACTAAAGAAGAGGCCAATGGTGTGATTTTGAACGTTTATGTTTCCGTGTCAACATT  
GTGAAAGGAAGTTTACAACCAACAGGGGCTTGAGCGTCACATGCATATCCATATATCCACCGTCAATCA  
TGCTTTCAAATGCAAGTACTGTGGGAAAGCCTTTGGCACACAGATTAACCGGCGGCACATGAGCGGCGC  
CATGAAGCAGGGTTAAAGCGGAAACCCAGCCAAACACTACAGCCGTGAGAGGATCTGGCTGATGGCAAAG  
CATCTGGAGAAAACGTTGCTTCAAAGATGATTCGAGTCTCCAGTCTTGGCCAGACTGTCTGATCAT  
GAATTCAGAGAAGGCTTCCCAAGACACAATAAATCTTCTGTGCTAGAAGAGAATGGGGAAGTTAAAGAA  
CTTCATCCGTGCAAATATTGTAAGGTTTGGAACTCATAATATGAGACGGCATCAGCGTAGAG  
TTCACGAACGTGATCTGATTCCTCAAGGTGACGGCGAAAAGGAGGCCTTGAAGAGCCCAAGCCTCCAGC  
AGAACAGGCCAGGCCACCCAGAACGTGTATGTACCAAGCACAGAGCCGAGGAGGAAGGGGAAGCAGAT  
GATGTGTACATCATGGACATTTCTAGCAATATCTCTGAAAACCTAAATTAATATATTGATGGTAAAAATC  
AAACTAATAACAACACTAGTAAGTGTGATGATTGAGATGGAGTCTGCTTCGGCAGATTTGATGGTAT  
AAATTGCTGCTCACTCCAGTTACAGTGGAAATTAATCAAAATATAAAGACCACACAGGTCCTGTAAACA  
GAAGATCTTCTAAAGAGCCTTTGGGCAGCACAATAAGTGAAGCCAAAGAGCGGAGAAGTGCAGCCAC  
CTGCACTGCCAAAATTAAGGCCGAAACAGACTCTGACCCATGGTCCCCTCTTGTCTTTAAGTCTTCC  
TCTTAGCATATCAACAACAGAGGAGTGTCTTTCCACAAAGAGAAAAGTGTATTTGTGATCAAGCTC



[View online >](#)

AAACAACCTTCTTCAAACCAAGATAAACTAACTCCTGCAGGGATTCAGCAACTGAAATAGCTAAATTAG  
GTCCTGTTTGTGTGTCTGCTCCTGCATCAATGTTGCCTGTGACCTCAAGTAGGTTAAGAGGCGGACCAG  
CTCTCCTCCCAGTTCTCCACAGCACAGTCTGCCCTTCGAGACTTTGGAAAGCCAAGTGATGGGAAAGCA  
GCATGGACCGATGCCGGGCTGACTTCCAAAAATCCAAATTAGAAAGTCACAGCGACTCACCAGCATGGA  
GTTTGTCTGGGAGAGATGAGAGAGAACTGTGAGCCCTCCATGCTTTGATGAATATAAAATGTCTAAAGA  
GTGGACAGCTAGTTCTGCTTTTAGCAGTGTGTGCAACCAGCAGCCACTGGATTTATCCAGCGGTGTCAAA  
CAGAAGGCTGAGGGTACAGGCAAGACTCCAGTCCAGTGGGAATCTGTCTTAGATCTAGTGTGCATAAAA  
AGCATTGTAGTGACTCTGAAGGCAAGGAATTCAAAGAAAGTCATTCAAGTGCAGCCTACGTGTAGTGTGT  
AAAGAAAAGGAAACCAACCACCTGCATGCTGCAGAAGTTCTTCTCAATGAATATAATGGCATCGATTTA  
CCTGTAGAAAACCTGCAGATGGGACCAGGAGCCCAAGTCCTTGTAAATCCCTAGAAGCTCAGCCAGATC  
CTGACCTCGGTCCGGGCTCTGGTTCCCTGCCCTACTGTTGAGTCCACACCTGATGTTTGTCTTCATC  
ACCTGCCCTGCAGACACCCTCCCTTTCATCCGGTCAGTGCCTCCTCTCTTGTATCCCCACAGATCCCTCT  
TCCCTCCACCCTGTCCCGGTATTAAGTGTGCCACTCCGCCCCCTCCCTCCTTCTACCGTACCTC  
TCCAGCCCCCTCTCCAGTGCATCTCCACACCATGCCCTCTCCACTCTCAAATGCCACCGCACAGTC  
CCCCTTCCAATTCTGTCCCAACAGTGTCCCTCTCCCTCTCCATTCTCCCGTGGAGCCCCGATG  
TCTGCCGCTCACCCGGGCTCCAACACTTTCTTCTCCTCCTTCTCATCTTCTCCTCCTTCTCGTTTT  
CTTCTTCTCCTCCTTCTCCTTCTCCACCTCCTCTCTCCGAATATCATCTGTTGTTTCTCCTG  
TGATAATCTGGAGGCTTCTCCTCCATGATATCTTTCAAACAGGAGGAATTAGAGAATGAAGGTCTGAAA  
CCCAGGGAAGAGCCCCAGTCTGCTGCTGAACAGGATGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG  
TTTGAACGTCTGTGAATCACCTTTTCTTCCATTAAAGATCTAACCAACATTTATCTATTCATGCTGA  
AGAATGGCCCTCAAATGTGAATTTTGTGTGCAGCTTTTAAGGATAAAACGGACTTGTGAGAATCGC  
TTTTTGTCTCATGGAGTTGGGAATATCTTTGTGTGTTCTGTTTGTAAAAAAGAATTTGCTTTTTTGTGCA  
ATTTGCAGCAGCACCAGCGAGATCTCCACCCAGATAAGGTGTGCACACATCACAGTGTGAAAGCGGGAC  
TCTGAGGCCCCAGAATTTACAGATCCCAGCAAGGCCCATGTAGAGCATATGCAGAGCTTGCCAGAAAGAT  
CCTTTAGAAACTTCTAAAGAAGAAGAGGAGTTAAATGATTCTCTGAAGACTTTACACGACTATAAAAA  
TAATGGCTTCTGGAATAAAGACAAAAGATCCAGATGTTGATTGGGCTCAATCAGCATTACCCAAGCTT  
TAAACCACCTCCATTTACAGTACCATCACCGTAACCCCATGGGGATTGGTGTGACAGCCACAAATTCACT  
ACACACAATATCCACAGACTTTCACTACCGCATTGCTGCACAAAGTGTGGAAAGGTGTGACAATA  
TGCCGGAGTTGCACAAACATATCCTGGCTTGTGCTTCTGCAAGTGACAAGAAGAGGTACACGCCTAAGAA  
AAACCCAGTACCATTAACAAACTGTGCAACCCAAAAATGGCGTGGTGGTTTTAGATAACTCTGGGAAA  
AATGCCTCCGACGAATGGGACAGCCAAAAGGCTTAACTTTAGTGTGAGCTCAGCAAAATGTCGTCGA  
ATAAGCTCAAATTAATGCATTGAAGAAAAAAATCAGCTAGTACAGAAAGCAATTTCTTCAGAAAAACAA  
ATCTGCAAAGCAGAAGGCCGACTTGAAAAATGCTTGTGAGTCATCCTCTCACATCTGCCCTTACTGTAAT  
CGAGAGTTCACATTACATTGGAAGCCTGAATAAACACGCGCCTTACAGTGTCCAAAAAACCCCTTCTC  
CTCCAAAAAAAAGTTTCTCATTATCTAAGAAAGGTGGACACTCATCACCTGCAAGTAGTGACAAAAA  
CAGTAACAGCAACCACCGCAGACGCGGATGCGGAGATTAAGTGCAGCAAGCATGCAGACTCCGTTG  
GGCAAGACCAGAGCCCGCAGCTCAGGCCCAACCAAGTCCACTTCCCTCCTCATCTTCAGGTCCAAGC  
AGAACGTCAAGTTGACGCTTCCGTTGAAATCCAAAAACCAAGTCCCTCCTTTAAGGAACTCCAGCCC  
GATAAGAATGGCCAAAATAACTCATGTTGAGGGGAAAAACCTAAAGCTGTGGCCAAGAATCATTGCT  
CAGCTTTCCAGCAAAACATCACGGAGCCTGCACGTGAGGGTACAGAAAAGCAAAGCTGTTTTACAAAGCA  
AATCCACCTTGGCGAGTAAGAAAAGAACAGACCGTTCAATATAAAATCTAGAGAGCGGAGTGGGGGCC  
AGTCAACCCGAGCCTTACAGTGGCAGCTGCTGCTGACTTGAGTGAGAACAAGAGAGAGGACGGCAGCGCC  
AAGCAGGAGCTGAAGGACTTCAGGAACTTCTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG214926 representing NM\_001007257  
 Red=Cloning site Green=Tags(s)

```
MRDSAEGPKEDEEKPSASALEQPATLQEVASQEVPELATPAPAWEPQPEPDERLEAAACEVNDLGEEEE
EEEEDEEEEEEDDDDELEDEGEEEEASMPNENSVKPEIRCDEKPEDLLEPKTTSEETLEDCSEVTPAM
QIPRTKEEANGDVFETFMFPCQHCERKFTTKQGLERHMHIIHISTVNHAFKCKYCGKAFGTQINRRRHERR
HEAGLKRKPSQTLQPSSEDLADGKASGENVASKDDSSPSSLGPDCLIMNSEKASQDTINSSVVEENGEVKE
LHFCKYCKKVFVGTHTNMRRHQRRVHERHLIPKGVRRKGGLEEQPPAEQAQATQNVVYVSTPEEEEGEAD
DVYIMDISSNISENLNYYIDGKIQTNNNTSNCDVIEMESASADLYGINCLLTPVTVEITQNIKTTQVPVT
EDLPKEPLGSTNSEAKKRRRTASPPALPKIKAETSDPMVPSLPLSISTTEAVSFHKEKSVYLSKSL
KQLLQTQDKLTPAGISATEIAKLGPVCSAPASMLPVTSSRFKRRRTSSPPSPQHPALRDFGKPSDGKA
AWTDAGLTSKSKLESHSDSPAWSL SGRDERETVSPPCFDEYKMSKEWTASSAFSSVCNQQLDSSGVK
QKAEGTGKTPVQWESVLDL SVHKKHCSDSEGKFKESHVQPTCSAVKKRKP TTCMLQKVLLNEYNGIDL
PVENPADGTRSPSPCKSLEAQPDPDLGPGSGFPAPTVESTPDVCPSSPALQTPSLSSGQLPPLL IPTDPS
SPPPCPPVLTVA PPPPLLPTVPLPAPSSASPHPCPSPLSNATAQSPLPILSPTVSPSPSIPPVEPLM
SAASPGPPTLSSSSSSSSSSSSSSSSSSSSSSSPPPPLSATSSVSSGDNLEASLPMISFKQELENEGLK
PREEPQSAAEQDVVVQETFNKNFVCNVCEPFLSIKDL TKHLSIHAEWPFKCEFCVQLFKDKTDLSEHR
FLLHGVGNIFVCSVCKKEFAFLCNLQQHQRD LHPDKVCTHHEFESGTLRPQNF TDP SKAHVEHMQSLPED
PLETSKEEEELNDSSEELYTTIKIMASGIKTKDPVRLGLNQHYPSFKPPPFQYHHRNPMIGV TATNFT
THNIPQTFTTAIRCTKCGKGVNDNMP ELHKHILACASADKKRYTPKKNPVLPKQTVQPKNGVVLDNSGK
NAFRRMGQPKRLNFSVELSKMSSNKLKLNALKKKNQLVQKAILQKNKSAKQADLKNACESSSHICPYCN
REFTYIGSLNKHAAFSCPKKPLSPPKVKVSHSSKKGHSSPASSDKNSNSNHRRTADAEIKMQSMQTP L
GKTRARSSGPTQVPLPSSSFRSKQNVKFAASVKSKKPPSSSLRNSSPIRMAKITHVEGKKPKAVAKNHSA
QLSSKTSRSLHVRVQKSKAVLQSKSTLASKRTRDRFNIKSRERSGGPVTRSLQLAAAADLSENKREDGSA
KQELKDFRNFL
```

TRTRPLE - GFP Tag - V

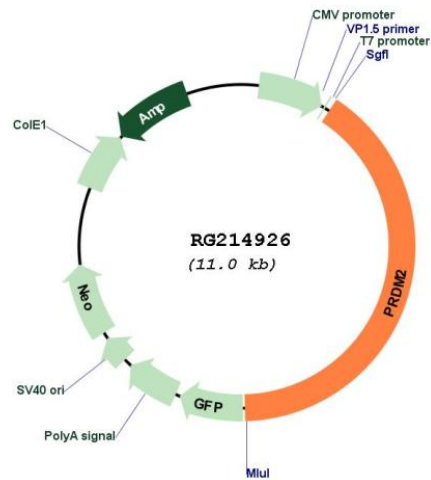
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



## Plasmid Map:



ACCN: NM\_001007257

ORF Size: 4443 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\\_001007257.3](#)

**RefSeq Size:** 6206 bp

**RefSeq ORF:** 4446 bp

**Locus ID:** 7799

**UniProt ID:** [Q13029](#)

**Cytogenetics:** 1p36.21

**Protein Families:** Druggable Genome

**Gene Summary:** This tumor suppressor gene is a member of a nuclear histone/protein methyltransferase superfamily. It encodes a zinc finger protein that can bind to retinoblastoma protein, estrogen receptor, and the TPA-responsive element (MTE) of the heme-oxygenase-1 gene. Although the functions of this protein have not been fully characterized, it may (1) play a role in transcriptional regulation during neuronal differentiation and pathogenesis of retinoblastoma, (2) act as a transcriptional activator of the heme-oxygenase-1 gene, and (3) be a specific effector of estrogen action. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2008]