

## Product datasheet for **RC218187**

### PRDM9 (NM\_020227) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PRDM9 (NM_020227) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PRDM9
Synonyms:	KMT8B; MEISETZ; MSBP3; PFM6; ZNF899
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>RC218187 representing NM\_020227  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAGCCCTGAAAAGTCCCAAGAGGAGAGCCAGAAGAAGACACAGAGAGAACAGAGCGGAAGCCCATGG  
 TCAAAGATGCCTTCAAAGACATTTCCATATACTTCACCAAGGAAGAATGGGCAGAGATGGGAGACTGGGA  
 GAAAACTCGTATAGGAATGTGAAAAGGAACTATAATGCACTGATTACTATAGGTCTCAGAGCCACTCGA  
 CCAGCTTTCATGTGTACCCGAAGGCAGGCCATCAAACCTCCAGGTGGATGACACAGAAGATTCTGATGAAG  
 AATGGACCCCTAGGCAGCAAGTCAAACCTCCTTGGATGGCCTTAAGAGTGGAACAGCGTAAACACCGAA  
 GGGAAATGCCCAAGGCGTCATTCAAGTAATGAATCTAGTTTAAAAGAATTGTCAAGAACAGCAAATTTACTG  
 AATGCAAGTGGCTCAGAGCAGGCTCAGAAACAGTGTCCCCTTCTGGAGAAGCAAGTACCTCTGGACAGC  
 ACTCAAGACTAAAACCTGGAACCTCAGGAAGAAGGAGACTGAAAGAAAGATGTATAGCCTGCGAAGAA  
 GGGTCATGCATACAAAGAGGTACAGCAGCCGAGGATGATGATTACCTCTATTGTGAGATGTGTCAGAAC  
 TTCTTCATTGACAGCTGTGCTGCCCATGGGCCCTACATTTGTAAGGACAGTGCAGTGGACAAGGGGC  
 ACCCCAACCGTTACGCCCTCAGTCTGCCCCAGGGCTGAGAATTGGGCCATCAGGCATCCCTCAGGCTGG  
 GCTTGGAGTATGGAATGAGGCATCTGATCTGCCGCTGGGTCTGCACTTTGGCCCTTATGAGGGCCGAATT  
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 AGAAAGGCTCATGGCAGGGAGAGAACCAGGAGAGATCCATCCATGTCCTCATGCTGTGCTGGCCTT  
 TTCAAAGTCAGAAAATTTCTCAGTCAACATGTAGAACGCAATCACTCCTCTCAGAACCTCCAGGCATCT  
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 AAAAGAATAATGGAAGAAGAGTCCAGAACAGGCCAGAAAGTGAATCCAGGGAACACAGGCAAATTTTG  
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 TTTGCAATAAGTCACACCTCCTCAGACACCAGAGGACACACACAGGGGAGAAGCCCTACGCTGCAGGG  
 AGTGTGGCGGGGCTTTAGCGATAGGTCAAGCCTCTGCTATCACCAGAGGACACACACAGGGGAGAAGCC  
 CTACGCTGCAGGGAGGATGAG

**ACCGGT**ACGGCGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218187 representing NM\_020227  
 Red=Cloning site Green=Tags(s)

MSPEKSQEE SPEEDTERTERKPMVKDAFKDISIYFTKEEWAEMGDWEKTRYRNVKRNYNALITIGLRATR  
 PAFMCHRRQAIKLVDDTEDSDEEWTPRQVQKPPWMLRVEQRKHQKMPKASFNESSLRELRTANLL  
 NASGSEQAQKPVSPSGEASTSGQHSRLKLELRKKETERKMYSLRERKGHAYKEVSEPQDDDYLYCEMCQN  
 FFIDSCAAHGPPTFVKDSAVDKGHPNRSALSLPPGLRIGPSGIPQAGLVWNEASDLPLGLHFGPYEGRI  
 TEDEEAANNYSWLITKGRNCYEYVDGDKSWANWMRYVNCARDEEQNLVAFQYHRQIFVYRTRVIRPG  
 CELLVWYGDEYQQLGIKWGSKWKELMAGREPKEIHPSPCLAFSSQKFLSQHVERNHSQNFPGPS  
 ARKLLQENPCPGDQNEQQYPDPHSRNDKTKGQEIKERSKLLNKRTWQREISRAFSSPPKGMGSCRVG  
 KRIMEEESRTGQKVNPGNTGKLFVGVGISRIAKVKYGECCGQF SVKSDVI THQRTHTGEKLYVCRECGRG  
 FSWKSHLLIHQRHTGEKPYVCRECGRGFSWQSVLL THQRTHTGEKPYVCRECGRGFSRQSVLL THQRRH  
 TGEKPYVCRECGRGFSRQSVLL THQRRHTGEKPYVCRECGRGFSWQSVLL THQRTHTGEKPYVCRECGRG  
 FSWQSVLL THQRTHTGEKPYVCRECGRGFSNKSHLLRHQRHTHTGEKPYVCRECGRGFRDKSHLLRHQRHT  
 TGEKPYVCRECGRGFRDKSNLLSHQRHTHTGEKPYVCRECGRGFSNKSHLLRHQRHTHTGEKPYVCRECGRG  
 FRNKSHLLRHQRHTHTGEKPYVCRECGRGFSRSSLCYHQRHTHTGEKPYVCREDE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

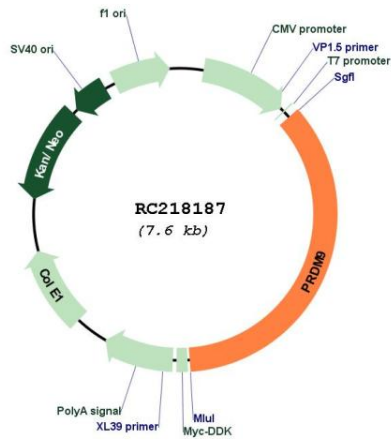
Cloning Scheme:



ACCN: NM\_020227

<b>ORF Size:</b>	2682 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_020227.4</a>
<b>RefSeq Size:</b>	3691 bp
<b>RefSeq ORF:</b>	2685 bp
<b>Locus ID:</b>	56979
<b>UniProt ID:</b>	<a href="#">Q9NQV7</a>
<b>Cytogenetics:</b>	5p14.2
<b>MW:</b>	103.2 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a zinc finger protein with histone methyltransferase activity that catalyzes histone H3 lysine 4 trimethylation (H3K4me3) during meiotic prophase. This protein contains multiple domains, including a Kruppel-associated box (KRAB) domain, an SSX repression domain (SSXRD), a PRD1-BF1 and RIZ homologous region, a subclass of SET (PR/SET) domain, and a tandem array of C2H2 zinc fingers. The zinc finger array recognizes a short sequence motif, leading to local H3K4me3, and meiotic recombination hotspot activity. The observed allelic variation alters the DNA-binding sequence specificity of the protein, resulting in distinct meiotic recombination hotspots amongst individuals and populations. Multiple alternate alleles of this gene have been described. [provided by RefSeq, Jul 2015]

Product images:



Circular map for RC218187