

## Product datasheet for **RR203842**

### **Msh5 (NM\_212536) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Msh5 (NM_212536) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Msh5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RR203842 representing NM\_212536  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTTTCAGAGCGACCCAGGCCGACGCCCGGGACCCGGCCCGGGTCCCCTCAGCCAGCTTCT  
 CCAGCCCTCAGCCTGCAATGGCGGCGCCTGGAGGTATCGAGGAAGAGGACGAGGAGAGCCGGCCGAGAT  
 CCATCTGTGTGTCTGTGGAGCTCGGGTATCTGGGCATTGCTTACTATGACACTAGTACTCCACGATC  
 CACTTCATGCCAGATGCCCCAGACCACGAGAGCCTGAAGCTTCTCCAGAGAGTTCTGGATGAAATCAACC  
 CCCAGTCTGTTGTGACAAGCGCCAAACAGGATGAGGCTATGACTCAATTTCTAGGGAAGCTTGCCTCCCA  
 GGAGCACAGAGAGCCAAAGAGACCAGAAATCATCTTCTGCCAAGCGTGGATTTTGGTCCAGAGATAAGC  
 AAACAGCGCCTCCTTTCCGGAACTACTCCTTCATCTCCGAGTCCATGACCGCCACTGAGAAAATCCTCT  
 TCCTCTCCTCCATTATCCCTTTGACTGTGTCTCACGGTCCGGGCACTGGAGGGCTGCTCAAGTTCCT  
 GAGTCAAGAAGAGTTGGGGTTGAACTGGAGGACTACAGTGTGGCGTCCCTATCCTGGGATTTAAGAAG  
 TTTGTATTGACCCATCTGGTGAGCATAGATCAAGACACTTACAGCGTTCTACAGATTTTCAAGAGTGAGT  
 CTCACCCCTCAGTGTACAAAGTAGCCAGCGGGCTGAAGGAGGGGCTCAGCCTCTTTGGAATCCTCAACAG  
 ATGTGCGTGTAGGTGGGGACAGAAGCTGCTCAGGCTATGGTTTACACGTCCGACCCGGGAGCTACGGGAG  
 CTCAATCCCCTGCTGGATGTCTTGTAGTTTTCTGATGCCTCAGAACCTGGACATGGCCAGATGATGC  
 ACCGTCTCCTGAGCCACATCAAGAACGTGCCTCTGATTCTGAAACGCATGAAGTTGTCCCATACCAAGGT  
 CAGTGACTGGCAGGTGCTCTACAAGACTGTGTACAGCGCCCTCGGCTGAGGGATGCCTGCCGTTCCCTG  
 CCCAGTCCATCCAGCTTTTTCCGGACATTACCCAGGAGTTCTCTGACGACCTGCACCACATTGCCAGCC  
 TCATCGGGAAGGTGGACTTCGAGGAAAGTCTTGGTGAATAATCGTTACAGTCTCCCAACATAGATCC  
 TGAATAGACGCTAAAAAGAGAAGGCTGATGGGGCTCCGAGTTTCTCACGGAAGTTGCTCAGAAGGAG  
 CTGGAGAACCTGGACTCTTGCATCCCCTCATGCAGTGTCTACATCCCTCTGATCGGCTTCTCCTTT  
 CCATCCCCTGATTGTCTTTCATGGTGGAGGCCAGTGACTTTGAGATTGAGGGACTGGACTTCATGTTTCT  
 CTCAGAGGACAAGCTGCACTACCGTAGTGCCCGGACCAAGGAGCTGGACGCACTGCTGGGAGACCTGCAC  
 TGCGAGATCCGGGACCAGGAGATGCTGCTGATGCACCAGCTGCAGTCCAGGTGCTGGCAGGGCTCCGG  
 TCTTGACTCGGGTACTGGACCTTGCTCCCGCTGGACGCTCTGTGGCTTTGCCAGTGCCGCCCGGGA  
 CTACGGCTATTCGAGACCGCATTACTCTCCCTGCATCCAGGGAGTACGAATCAAGATGGCCGGCATCCA  
 CTGATGGAGCTGTGCGCACGGACCTTCGTGCCAACTCCACAGACTGCGGTGGGGACCAGGGGAGGGTCA  
 AAGTCATCACTGGACCAACTTTCAGGAAAAGCATATATCTGAAACAGGTAGGCTTGATCACCTTCAT  
 GGCCCTGGTGGGAGCTTCGTGCCTGCAGAGGAGGCAGAAATGGGGTAATCGACGCCATCTTACCCCGA  
 ATTCACAGCTGCGAGTCCATCTCCCTCGGTCTCTCCACCTTCATGATTGATCTCAACCAGGTGGCGAAA  
 CAGTGAACAATGCCACAGAGCACTCTCTGGTCTTATTGACGAATTCGGGAAGGGAACTCGGTGGA  
 TGGTCTGGCACTTCTGACTGCTGTGCTCCGTCACTGGTAGCACTGGGACCCAGCTGCCCGCACATCTTT  
 GTGGCCACCAACTTCTGAGCCTTGTTGAGTGCAGCTGCTGCCCAAGGACCCCTGGTACAGTATTTGA  
 CCATGGAGACTTGTGAGGATGGGAACGACCTTGTCTTCTATCAGCTTTGCCATGGCGTCGCCAGTGC  
 CAGCCATGCCTCTACACTGCGGCCAGGCTGGACTTCTGACCCACTATTGCTCGAGGCAAGAGGGTCT  
 TCAGACTCGATCCGACGCGGGAAGCCCGTCAAGCCCATGCATGAACTTGTGAGGAGGACCCAGATGGAAA  
 ATTGCCAGGCCCTGGTGGATAAATTTCTAAAATTGGACTTGAAGATCCCTCACTGGACCTGGACATTTT  
 CATTAGTCAGGAAGTGCTCCCTGCCGCCACCACCATCCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RR203842 representing NM\_212536  
 Red=Cloning site Green=Tags(s)

MAFRATPGRTPPGPGVPSASFSSQPAMAAPGGIEEEDEEPAEIHLCVLWSSGYLGIAYYDTSSTI  
 HFMPDAPDHESLKLQRVLEINPQSVVTSAKQDEAMTQFLGKLASQEHREPKRPEIILLPSVDFGPEIS  
 KQRLLSGNYSFISESMTATEKILFLSSIIPFDCVLTVRALGGLLKFLSRRRVGVELEDYSVGVPI LGFKK  
 FVLTHLVSIDQDYSVLQIFKSESHPSVYKVASGLKEGLSLFGILNRCRCRWGQKLLRLWFTRPTRELRE  
 LNSRLDVIEFFLMPQNLDMAQMMHRLLSHIKNVPLILKRMKLSHTKVSDWQVLYKTVYSALGLRDCRSL  
 PQSIQLFRDITQEFSDDLHHIASLIGKVDFEESLAENRFTVLPNIDPEIDAKKRRMLMGLPSFLTEVAQKE  
 LENLDSCIPSCSVIYIPLIGFLLSIPRLSFMVEASDFEIEGLDFMFLSEDKLHYRSARTKELDALLGDLH  
 CEIRDQEMLLMHQLQCQVLARAPVLT RVLDLASRLDVLLALASAARDYGYSRPHYSPCIQGVRIKNGRHP  
 LMELCARTFVPNSTDCGGDQGRVKVITGPNSSGKSIYKQVGLITFMALVGSFVPAEEAEIGVIDAIFTR  
 IHSCESISLGLSTFMIDLNOVAKAVNNATEHSLVLIDFVGKGTNSVDGLALLTAVLRHWLALGPSCPHIF  
 VATNFLSLVQLQLLPQGPLVQYLTMETCEDGNDLVFFYQLCHGVASASHASYTAAQAGLPDPLIARGKEV  
 SDSIRSGKPVKPMHELVRRTQMENCQALVDKFLKLDLEDPSLDLDFISQEVLPAAATTIL

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** Sgfl-MluI

Cloning Scheme:



ACCN: NM\_212536

ORF Size: 2490 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\\_212536.2](#), [NP\\_997701.2](#)

**RefSeq Size:** 2679 bp

**RefSeq ORF:** 2493 bp

**Locus ID:** 294252

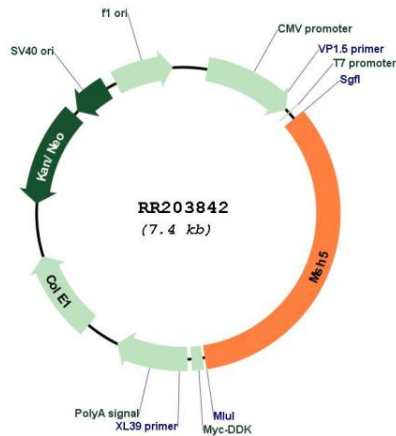
**UniProt ID:** [Q6MG62](#)

**Cytogenetics:** 20p12

**MW:** 92.4 kDa

**Gene Summary:** member of the mutS family of proteins; involved in DNA mismatch repair or meiotic recombination; *Saccharomyces cerevisiae* homolog is important for meiotic segregation fidelity and crossing-over [RGD, Feb 2006]

**Product images:**



Circular map for RR203842