

Product datasheet for **MC223548**

Msh3 (NM_010829) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
 Product Name: Msh3 (NM_010829) Mouse Untagged Clone
 Tag: Tag Free
 Symbol: Msh3
 Synonyms: D13Em1; Rep-3; Rep3
 Vector: pCMV6-Entry (PS100001)
 E. coli Selection: Kanamycin (25 ug/mL)
 Cell Selection: Neomycin
 Fully Sequenced ORF: >MC223548 representing NM_010829
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCCCGCGGAAATCCGCGTCGGGAGGCTCTACTGCCCGCGCCAGGCCCGGGAGGCAAACGGTTC
 TAAGCCGGTCTTCAGGCTGCGGGAAGCCTAAGATCCAGCGCTCCTCCAGGAGCCAGCAGAGAAGGT
 GACAGAAGGTGACAGCAGGAAGAGTCACTGGGAAATGGTGGGCCCACTAAGAAAAAGCAAGGAAAGTT
 CCAGAGAAGGAGGAAGAAACATCTCAGTAGCAGCTCACCACCCTGAGGCAAAGAAATGTCTGAGGCCCA
 GGATTGTTTTAAAGTCCCTGAAAAAGTTGAAAGAATTCTGCTGTGATTCTGCCCTCCCTCAAACAGAGT
 CCAGACAGAAGCTCTTCGGGAGAGACTTGAAGTTCTGCCAAGGTGTACTGATTTTGAAGATCACTCTG
 CAACGTGCAAAGAATGCGGTTTTGTCCGAAGATTCCAATCTCAGGCTAATCAGAAAGACAGTCAATTTG
 GACCTGCCCTGAAGTTTTCCAGAAGACTTCCGATTGTAACCTTTTACAAGCGATCCAAGAGCGTCTA
 TACACCGTTAGAAGTGCAGTACTTAGATATGAAGCAGCAGCATAAAGACGCAGTTTTGTGTGGAGTGT
 GGTTACAAGTACAGATCTTTGGGGAAGATGCAGAAATGCTGCCGGGAACCAATATTTATTGCCACT
 TAGACCACAATTTATGACTGCAAGCATACCTACCCACAGACTGTCGTGCATGTCGCGCACTTGTGGC
 CAAAGGGTACAAGGTGGGAGTTGTGAAGCAAAGTAAAGTAAAGGCAATTAAGGCCATCGGAGACAATAAA
 AGTTCTGTCTTCTCCCGAAATTGACCGCTCTTATACGAAATCCACACTTATTGGTGAAGATGTGAATC
 CTCTCATCAGGCTGGATGATTCTGTAATATCGATGAGGTAATGACAGATACATCTACCAACTATCTTCT
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 CTCGCATATCAAGCCTGCAGCCTGTGGAATTACTGCTTCCCTCCGACCTGTCTGTGCCAACAGAGATGCT
 CATCCAAAGAGCCACCAATGTCAGTGTGCGGGATGACAGGATTCGAGTAGAAAGGATGAATAACTTAC
 TTTGAATACAGCCATGCTTCCAGACAGTTACGGAGTTTTATGCTAGAGAGATAGTTGACAGCCAGGGCT
 CTCAGAGTCTCTCTGGTGCATTAACCTGGAGAAGCCTGTGATCTGCGCCTTGGCTGCCGTAATAAGGTA
 CCTCAAGGAATTTAACCTGGAAAAGATGCTGTCCAAACCCGAGAGTTTTAAACAGCTGTCAAGTGGAAATG
 GAATTCATGAGAATTAATGGGACCACGCTAAGGAATCTGGAGATCCTTCAGAATCAGACTGATATGAAGA



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CCAAAGGAAGCTTGCTTTGGGTTTTAGACCACACTAAAACCTTCATTTGGGAGAAGGAAGTTAAAGAATTG
GGTTACCCAGCCACTGCTTAAATTAAGGGAAATAAATGCCCGACTTGATGCAGTATCTGATGTTCTCCAC
TCAGAATCCAGTGTGTTTGGAGCAGATAGAAAACCTTCTTCGTAAGTTACCGGATGTGCAGAGAGGACTAT
GTAGCATTTATCACAAGAAGTGTCTACCCAAGAGTCTCTTCTTGATCGTCAAAGCCTATGTCAACTGAA
GTCAGAGCTTCAAGCATTAAATGCCTGCTGTTAATCCCACGTTCCAGTCCGACTTACTCCGAGCACTCATC
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TTGGCGATAAAAACCTGAATTATTTCAAAGACCTCTGACTCCCTTAAATAAAAAAGGAGGAAAAATGAAAT
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CAGTATGTGACTGTATCAGGACAAGAGTTTATGATTGAAATAAAGAACTCGGCTGTATCTTGCATCCACG
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CAGACGTCTGAATCAGCTCCGGGAGCAGCTAGTCTTGACTGCAATGCTGAATGGCTTGGCTTCTAGAG
AATTTTGGTGAACATTATCACACTTTGTGAAGGCTGTGGATCACCTAGCAACTGTTGACTGTATTTTCT
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AAAAAATGGAAGGCACCCTATGATTGATGTGTTGCTGGGTGAACAAGATCAGTTTGTGCCAACAGTACG
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TAAAACAGGTTGCACTGGTTACCATCATGGCTCAGATTGGCTCCTACGTCCTGCAGAGGAAGCCACAAT
TGGGATTGTGGATGGCATTTCACAAGGATGGGTGCTGCAGACAATATATACAAAGGCCGGAGTACTTTC
ATGGAAGAACTGACGGACACAGCGGAAATAATCAGGAGAGCGTCCCCACAGTCTTGGTTATCCTGGATG
AGCTGGGGAGAGGGACAAGCACCATGACGGAATCGCCATCGCCTATGCAACTCTAGAGTATTTTATCAG
AGACGTGAAATCCTTAACACTGTTTCGTTACCCACTATCCACCAGTCTGTGAACTAGAAAAATGTTACCCA
GAACAAGTGGGGAATTACCACATGGGATTCTTGGTCAATGAAGATGAAAGCAAGCAGGACTCAGGTGACA
TGGAGCAGATGCCGATTCTGTCACTTTTCTCTATCAGATAACCCGAGGAATTGCAGCGAGAAGTTATGG
ACTTAATGTGGCGAAGTTAGCAGATGTACCTAGAGAAGTCTTACAGAAAGCCGCGCACAAGTCTAAGGAG
CTGGAAGGCTTAGTCAGCCTGAGAAGGAAAAGGCTTGAATGTTTTACCGACTTATGGACGACACACAGTG
TGAAGGACCTGCACACATGGGCAGATAAGCTGGAATGGAGGAAATACAGACTTCTCTCCACAT TAA

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ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_010829
- Insert Size:** 3288 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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_010829.2](#), [NP_034959.2](#)

RefSeq Size: 3945 bp

RefSeq ORF: 3288 bp

Locus ID: 17686

UniProt ID: [P13705](#)

Cytogenetics: 13 47.63 cM

Gene Summary: Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS beta which binds to DNA mismatches thereby initiating DNA repair. When bound, the MutS beta heterodimer bends the DNA helix and shields approximately 20 base pairs. MutS beta recognizes large insertion-deletion loops (IDL) up to 13 nucleotides long. After mismatch binding, forms a ternary complex with the MutL alpha heterodimer, which is thought to be responsible for directing the downstream MMR events, including strand discrimination, excision, and resynthesis (By similarity).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) encodes the longer isoform (1).