

Product datasheet for **MG218117**

Msh3 (NM_010829) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Msh3 (NM_010829) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Msh3
Synonyms: D13Em1; Rep-3; Rep3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG218117 representing NM_010829
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCCGCGGAAATCCGCGTCGGGAGGCTCTACTGCCCGGCCAGGCCCGGGAGGCAAACGGTTC
 TAAGCCGGTTCCTCAGGTCGCGGAAGCCTAAGATCCAGCGCTCTCCACGGAGCCAGCAGAGAAGGT
 GACAGAAGGTGACAGCAGGAAGAGGTCACTGGGAAATGGTGGGCCACTAAGAAAAAGCAAGGAAAGTT
 CCAGAGAAGGAGGAAGAAACATCTCAGTAGCATCTACCACCTGAGGCAAAGAAATGTCTGAGCCCA
 GGATTGTTTTAAAGTCCCTGGAAAAGTTGAAAGAATTCTGCTGTGATTCTGCCCTCCCTCAAACAGAGT
 CCAGACAGAAGCTCTTCGGGAGAGACTTGAAGTTCTGCCAAGGTGTACTGATTTTGAAGATCACTCTG
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 GACCTGCCCTGAAGTTTTCCAGAAGACTTCCGATTGTAAACCTTTTAAACAAGCGATCCAAGAGCGTCTA
 TACACCGTTAGAAGTGCAGTACCTAGATATGAAGCAGCAGCATAAAGACGCAGTTTTGTGCGTGGAGTGT
 GGTTACAAGTACAGATCTTTGGGGAAGACGCAGAAATGCTGCCCGGAACTCAATATTTATTGCCACT
 TAGACCACAACTTTATGACTGCAAGCATACCTACCCACAGACTGTTTCGTGCATGTCGCCGACTTGTGGC
 CAAAGGGTACAAGGTGGGAGTTGTGAAGCAAACGAACTGCCGATTAAGGCCATCGGAGACAATAAA
 AGTTCGTCTTCTCCCGAAATGACCGCTCTTATACGAAATCCACACTTATTGGTGAAGATGTGAATC
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 CCTCAAGGAATTAACCTGGAAAAGATGCTGTCCAACCCGAGAGTTTTAACAGCTGTCAAGTGGAAATG



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GAATTCATGAGAATTAATGGGACCACGCTAAGGAATCTGGAGATCCTTCAGAATCAGACTGATATGAAGA
 CCAAAGGAAGCTTGGTTTGGGTTTGTAGACCACACTAAAACCTTCATTTGGGAGAAGGAAGTTAAAGAATTG
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 TGAAGGACCTGCACACATGGGCAGATAAGCTGGAATGGAGGAAATACAGACTTCTCTCCACAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG218117 representing NM_010829
 Red=Cloning site Green=Tags(s)

MPRGKSASGGSTAAGPGPGRQTVLSRFFRSAGSLRSSASSTEPAEKVTEGDSRKRSLGNGGPTKKKARKV
 PEKEEENISVASHHPEAKKCLRPRIVLKSLEKLKEFCCDSALPQNRVQTEALRERLEVLPRCTDFEDITL
 QRAKNVLSKQANQKDSQFGPCPEVFQKTSACKPFNKRKSVYTPLELQYLDKMQQHKDAVLCEVC
 GYKYRFFGEDAEIAARELNLYCHLDHNFMTASIPTHRLFVHVRRLVAKGYKGVVQKQETAALKAIGDNK
 SSVFSRKLTAALYKSTLIGEDVNPLIRLDDSVNIDEVMTDISTNYLLCIYEEKENIKDKKGNLSVGVV
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 EFMRINGTTLRNLEILQNQDMKTKGSLWVLDHTKTSFGRRRLKNWVTPQLLKLREINARLDAVSDVLH
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 VEAPPELLSPVEHYLKVNLGPAKVGDKTELFDLSDFPILIKKRNEIQEVIHSIQMRLQEFRKILKLPSL
 QYVTVSGQEFMIEIKNSAVSCIPADWVKVGSTKAVSRFHPPFIVESYRRLNQLREQLVLDCAEWLGFLE
 NFGHEHYHTLCKAVDHLATVDCIFSLAKVAKQGNCRPTLQEEKIIKNGRHPMIDVLLGEQDQFVNST
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 MEELTDTAEIIRRASPQSLVILDELGRGTSHDGIAYATLEYFIRDVKSLLTFVTHYPPVCELEKCY
 EQVGNYHMGFLVNEDESKQDSGDMEQMPDSVTFLYQITRGTIAARSYGLNVAKLADVPREVLQKAAHKSKE
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TRTRPLE – GFP Tag – V

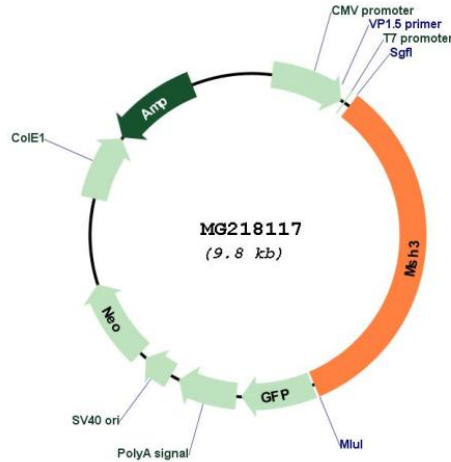
Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_010829

ORF Size: 3285 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:	<ol style="list-style-type: none">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]