

Product datasheet for **RG205848**

MSH2 (NM_000251) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | MSH2 (NM_000251) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | MSH2 |
| Synonyms: | COCA1; FCC1; hMSH2; HNPCC; HNPCC1; LCFS2; MMRCS2 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG205848 representing NM_000251
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGGTGCAGCCGAAGGAGACGCTGCAGTTGGAGAGCGCGCCGAGGTTCGGCTTCGTGCGCTTCTTTCC
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 CG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG205848 representing NM_000251
 Red=Cloning site Green=Tags(s)

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MAVQPKETLQLESAAEVGFVRRFFQGMPEKPTTTVRLFDRGDFYTAHGEDALLAAREVFKTQGVIKYMGPA
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TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

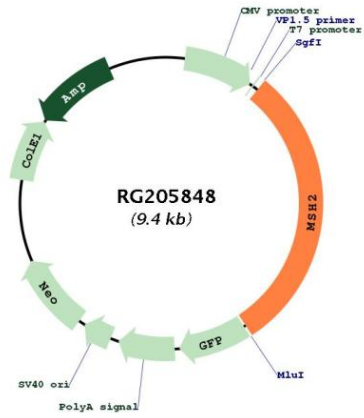


ACCN: NM_000251

ORF Size: 2802 bp

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|-------------------------------|---|
| 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_000251.3 |
| RefSeq Size: | 3145 bp |
| RefSeq ORF: | 2805 bp |
| Locus ID: | 4436 |
| UniProt ID: | P43246 |
| Cytogenetics: | 2p21-p16.3 |
| Domains: | MutS_V, MutS_I, MutS_III, MutS_II, MutS_IV |
| Protein Families: | Druggable Genome, Stem cell - Pluripotency |
| Protein Pathways: | Colorectal cancer, Mismatch repair, Pathways in cancer |
| Gene Summary: | This locus is frequently mutated in hereditary nonpolyposis colon cancer (HNPCC). When cloned, it was discovered to be a human homolog of the E. coli mismatch repair gene mutS, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2012] |

Product images:



Circular map for RG205848