MSH3 cDNA Clone – Muts Homolog 3 (E. Coli) (Human)

PRODUCT OVERVIEW

Product Name	MSH3, cDNA Clone
Full Product Name	MSH3 cDNA Clone
Product Gene Name	MSH3 cdna clone
Sequence	atgtctcgcc ggaagcctgc gtcgggcggc ctcgctgcct ccagctcagc ccctgcgagg caagcggttt tgagccgatt cttccagtct acgggaagcc tgaaatccac ctcctcctcc acaggtgcag ccgaccaggt ggaccctggc gctgcagcgg ctgcagcggc cgcagcggcc acagcgcccc cagcgccccc agctcccgcc ttcccgcccc agctgccgcc gcacatagct acagaaattg acagaagaaa gaagagacca ttggaaaatg atgggcctgt taaaaagaaa gtaaagaaag tccaacaaaa ggaaggagga agtgatctgg gaatgtctgg caactctgag ccaaagaaat gtctgaggac caggaatgtt tcaaagtctc tggaaaaatt gaaagaattc tgctgcgatt ctgcccttcc tcaaagtaga gtccagacag aatctctgca ggagagattt gcagttctgc caaaatgtac tgattttgat gatatcagtc ttctacacgc aaagaatgca gtttcttctg aagattcgaa acgtcaaatt aatcaaaagg acacaacact ttttgatctc agtcagtttg gatcatcaaa tacaagtcat gaaaatttac agaaaactgc ttccaaatca gctaacaaac ggtccaaaag catctatacg ccgctagaat tacaatacat agaaatgaag cagcagcaca aagatgcagt tttgtgtgtg gaatgtggat ataagtatag attctttggg gaagatgcag agattgcagc ccgagagctc aatatttatt gccatttaga tcacaacttt atgacagcaa gtatacctac tcacagactg tttgttcatg tacgccgcct ggtggcaaaa ggatataagg tgggagttgt gaagcaaact gaaactgcag cattaaaggc cattggagac aacagaagtt cactcttttc ccggaaattg actgcccttt atacaaaatc tacacttatt ggagaagatg tgaatcccct aatcaagctg gatgatgctg taaatgttga tgagataatg actgatactt ctaccagcta tcttctgtgc atctctgaaa ataaggaaaa tgttagggac aaaaaaaagg gcaacatttt tattggcatt gtgggagtgc agcctgccac aggcgaggtt gtgtttgata gtttccagga ctctgcttct cgttcagagc tagaaacccg gatgtcaagc ctgcagccag tagagctgct gcttccttcg gccttgtccg agcaaacaga ggcgctcatc cacagagcca catctgttag tgtgcaggat gacagaattc gagtcgaaag gatggataac atttattttg aatacagcca tgctttccag gcagttacag agttttatgc aaaagataca gttgacatca aaggttctca aattatttct ggcattgtta acttagagaa gcctgtgatt tgctctttgg ctgccatcat aaaatacctc aaagaattca acttggaaaa gatgctctcc aaacctgaga attttaaaca gctatcaagt aaaatggaat ttatgacaat taatggaaca acattaagga atctggaaat cctacagaat cagactgata tgaaaaccaa aggaagtttg ctgtgggttt tagaccacac taaaacttca tttgggagac ggaagttaaa gaagtgggtg acccagccac tccttaaatt aagggaaata aatgcccggc ttgatgctgt atcggaagtt ctccattcag aatctagtgt gtttggtcag atagaaaatc atctacgtaa attgcccgac atagagaggg gactctgtag catttatcac aaaaaatgtt ctacccaaga gttcttcttg attgtcaaaa ctttatatca cctaaagtca gaatttcaag caataatacc tgctgttaat tcccacattc agtcagactt gctccggacc gttattttag aaattcctga actcctcagt ccagtggagc attacttaaa gatactcaat gaacaagctg ccaaagttgg ggataaaact gaattattta aagacctttc tgacttccct ttaataaaaa agaggaagga tgaaattcaa ggtgttattg acgagatccg aatgcatttg caagaaatac gaaaaatact aaaaaatcct tctgcacaat atgtgacagt atcaggacag gagtttatga tagaaataaa gaactctgct gtatcttgta taccaactga ttgggtaaag gttggaagca caaaagctgt gagccgcttt cactctcctt ttattgtaga aaattacaga catctgaatc agctccggga gcagctagtc cttgactgca gtgctgaatg gcttgatttt ctagagaaat tcagtgaaca ttatcactcc ttgtgtaaag cagtgcatca cctagcaact gttgactgca ttttctccct ggccaaggtc gctaagcaag gagattactg cagaccaact gtacaagaag aaagaaaaat tgtaataaaa aatggaaggc accctgtgat tgatgtgttg ctgggagaac aggatcaata tgtcccaaat aatacagatt tatcagagga ctcagagaga gtaatgataa ttaccggacc aaacatgggt ggaaagagct cctacataaa acaagttgca ttgattacca tcatggctca gattggctcc tatgttcctg cagaagaagc gacaattggg attgtggatg gcattttcac aaggatgggt gctgcagaca atatatataa aggacggagt acatttatgg aagaactgac tgacacagca gaaataatca gaaaagcaac atcacagtcc ttggttatct tggatgaact aggaagaggg acgagcactc atgatggaat tgccattgcc tatgctacac ttgagtattt catcagagat gtgaaatcct taaccctgtt tgtcacccat tatccgccag tttgtgaact agaaaaaaat tactcacacc aggtggggaa ttaccacatg ggattcttgg tcagtgagga tgaaagcaaa ctggatccag gcacagcaga acaagtccct gattttgtca ccttccttta ccaaataact agaggaattg cagcaaggag ttatggatta aatgtggcta aactagcaga tgttcctgga gaaattttga agaaagcagc tcacaagtca aaagagctgg aaggattaat aaatacgaaa agaaagagac tcaagtattt tgcaaagtta tggacgatgc ataatgcaca agacctgcag aagtggacag aggagttcaa catggaagaa acacagactt ctcttcttca ttaa
Molecular Weight	127,412 Da
OMIM	600887
Vector	Please Inquire
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for MSH3 cdna clone	MBS1268517 is a cDNA clone targeting MSH3.
Other Notes	Small volumes of MSH3 cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MSH3. It may not necessarily be applicable to this product.

NCBI GI #	120660369
NCBI GeneID	4437
NCBI Accession #	BC130434
UniProt Secondary Accession #	Q6PJT5; Q86UQ6; Q92867; A1L480; A1L482; A6NMM6
UniProt Related Accession #	P20585
NCBI Official Full Name	Homo sapiens mutS homolog 3 (E. coli), mRNA
NCBI Official Synonym Full Names	mutS homolog 3
NCBI Official Symbol	MSH3
NCBI Official Synonym Symbols	DUP; MRP1
UniProt Protein Name	DNA mismatch repair protein Msh3
UniProt Synonym Protein Names	Divergent upstream protein; DUP; Mismatch repair protein 1; MRP1
Protein Family	DNA mismatch repair protein
UniProt Gene Name	MSH3
UniProt Synonym Gene Names	DUC1; DUG; hMSH3; DUP; MRP1
UniProt Entry Name	MSH3_HUMAN
NCBI Protein Information	DNA mismatch repair protein Msh3
NCBI Summary for MSH3	The protein encoded by this gene forms a heterodimer with MSH2 to form MutS beta, part of the post-replicative DNA mismatch repair system. MutS beta initiates mismatch repair by binding to a mismatch and then forming a complex with MutL alpha heterodimer. This gene contains a polymorphic 9 bp tandem repeat sequence in the first exon. The repeat is present 6 times in the reference genome sequence and 3-7 repeats have been reported. Defects in this gene are a cause of susceptibility to endometrial cancer. [provided by RefSeq, Mar 2011]
UniProt Comments for MSH3	MSH3: 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. Defects in MSH3 are a cause of susceptibility to endometrial cancer (ENDMC). Belongs to the DNA mismatch repair MutS family. MSH3 subfamily. Protein type: DNA repair, damage Chromosomal Location of Human Ortholog: 5q11-q12 Cellular Component: membrane; MutSbeta complex; nuclear chromosome; nucleoplasm Molecular Function: damaged DNA binding; dinucleotide insertion or deletion binding; dinucleotide repeat insertion binding; enzyme binding; guanine/thymine mispair binding; mismatched DNA binding; oxidized purine DNA binding; protein binding; protein homodimerization activity; single guanine insertion binding; single-stranded DNA binding Biological Process: DNA repair; maintenance of DNA repeat elements; meiotic mismatch repair; meiotic recombination; mismatch repair; negative regulation of DNA recombination; positive regulation of helicase activity Disease: Endometrial Cancer
Research Articles on MSH3	**1.** The mismatch-binding protein MutS beta, a heterodimer of MSH2 and MSH3, activates ATR in response to DNA double-strand breaks.

Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/cdna-clone/msh3/1268517