MSH3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MSH3, Polyclonal Antibody
Full Product Name	MSH3 Antibody
Product Gene Name	anti-MSH3 antibody
Product Synonym Names	DUC1; DUG; DNA mismatch repair protein Msh3; hMSH3; Divergent upstream protein; DUP; Mismatch repair protein 1; MRP1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH7.3, 30% glycerol, and 0.01% sodium azide.
Purity/Purification	The antibody was purified by immunogen affinity chromatography.
Specificity	Recognizes endogenous levels of MSH3 protein.
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C for one year. Avoid freeze/thaw cycles.
Molecular Weight	127,412 Da
Chromosome Location	Chromosome: 5; NC_000005.9 (79950467..80172634). Location: 5q11-q12
OMIM	600887
3D Structure	ModBase 3D Structure for P20585
Immunogen	KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human MSH3. The exact sequence is proprietary.
Product Categories/Family for anti-MSH3 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-MSH3 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-MSH3 antibody	WB: 1:500-1:1000 IHC: 1:50-1:200
Related Product Information for anti-MSH3 antibody	MBS8582319 is an antibody targeting MSH3. Also known as MSH3 Antibody. Reactive in Human. Host: Rabbit. Rabbit polyclonal antibody to MSH3
Other Notes	Small volumes of anti-MSH3 antibody 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 #	284813531

NCBI GeneID	4437
NCBI Accession #	NP_002430.3
UniProt Primary Accession #	P20585
UniProt Secondary Accession #	Q6PJT5; Q86UQ6; Q92867; A1L482; A6NMM6
UniProt Related Accession #	P20585
GenBank Nucleotide #	NM_002439.4
NCBI Official Full Name	DNA mismatch repair protein Msh3
NCBI Official Synonym Full Names	mutS homolog 3 (E. coli)
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
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; hMSH3; mismatch repair protein 1; divergent upstream protein
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: nucleoplasm; nuclear chromosome; membrane; nucleus; MutSbeta complex Molecular Function: DNA-dependent ATPase activity; double-strand/single-strand DNA junction binding; protein homodimerization activity; dinucleotide repeat insertion binding; oxidized purine DNA binding; mismatched DNA binding; loop DNA binding; Y-form DNA binding; centromeric DNA binding; protein binding; enzyme binding; single guanine insertion binding; guanine/thymine mispair binding; dinucleotide insertion or deletion binding; ATP binding; single-stranded DNA binding Biological Process: positive regulation of helicase activity; negative regulation of DNA recombination; mismatch repair; meiotic recombination; somatic recombination of immunoglobulin gene segments; DNA repair; maintenance of DNA repeat elements; meiotic mismatch repair Disease: Endometrial Cancer
Research Articles on MSH3	**1.** Oxidative stress, which causes a shift of hMSH3's subcellular location, may contribute to an hMSH3 loss-of-function phenotype by sequestering it to the cytosol

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