Recombinant Human MSH2 protein, GST-tagged

Cat. No. MSH2-28175TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MSH2(1 a.a. - 934 a.a.) fused with GST tag at N-terminal was expressed in Wheat Germ.
Species	Human
Source	Wheat Germ
ProteinLength	1-934 a.a.
Description	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.
Form	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
Molecular Mass	131.1 kDa
AA Sequence	MAVQPKETLQLESAAEVGFVRFFQGMPEKPTTTVRLFDRGDFYTAHGEDALLAARE VFKTQGVIKYMGPAGAKNL QSVVLSKMNFESFVKDLLLVRQYRVEVYKNRAGNKAS KENDWYLAYKASPGNLSQFEDILFGNNDMSASIGVVGV KMSAVDGQRQVGVGYVD SIQRKLGLCEFPDNDQFSNLEALLIQIGPKECVLPGGETAGDMGKLRQIIQRGGILIT E RKKADFSTKDIYQDLNRLLKGKKGEQMNS

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Applications	Enzyme-linked Immunoabsorbent Assay; Western Blot (Recombinant protein); Antibody Production; Protein Array
Notes	Best use within three months from the date of receipt of this protein.
Storage	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

GENE INFORMATION

Gene Name	MSH2 mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli) [Homo sapiens]
Official Symbol	MSH2
Synonyms	MSH2; mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli); COCA1, mutS (E. coli) homolog 2 (colon cancer, nonpolyposis type 1); DNA mismatch repair protein Msh2; HNPCC; HNPCC1; hMSH2; FCC1; COCA1; LCFS2;
Gene ID	4436
mRNA Refseq	NM_000251
Protein Refseq	NP_000242
MIM	609309
UniProt ID	P43246
Chromosome Location	2p21
Pathway	BRCA1-associated genome surveillance complex (BASC), organism-specific biosystem; Colorectal cancer, organism-specific biosystem; Colorectal cancer,

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	conserved biosystem; Direct p53 effectors, organism-specific biosystem; Mismatch repair, organism-specific biosystem; Mismatch repair, conserved biosystem; Pathways in cancer, organism-specific biosystem;
Function	contributes_to ADP binding; contributes_to ATP binding; contributes_to ATPase activity; DNA binding; DNA-dependent ATPase activity; contributes_to MutLalpha complex binding; Y-form DNA binding; centromeric DNA binding; damaged DNA binding; contributes_to dinucleotide insertion or deletion binding; contributes_to dinucleotide repeat insertion binding; double-strand/single-strand DNA junction binding; contributes_to double-stranded DNA binding; enzyme binding; contributes_to four-way junction DNA binding; contributes_to guanine/thymine mispair binding

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