



# Mouse Anti-Human MSH2 monoclonal antibody, clone JID521 (CABT-L2841)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

<b>Product Overview</b>	This antibody is intended for qualified laboratories to qualitatively identify by light microscopy the presence of associated antigens in sections of formalin-fixed, paraffin-embedded tissue sections using IHC test methods.
<b>Specificity</b>	Human MSH2
<b>Isotype</b>	IgG
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Clone</b>	JID521
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	IHC
<b>Reconstitution</b>	The prediluted antibody does not require any mixing, dilution, reconstitution, or titration; the antibody is ready-to-use and optimized for staining. The concentrated antibody requires dilution in the optimized buffer, to the recommended working dilution range.
<b>Positive Control</b>	Colon Mucosa, Colon Carcinoma
<b>Format</b>	Liquid
<b>Size</b>	Predilut: 7 ml, Concentrate: 100 µl, Concentrate: 1 ml
<b>Buffer</b>	Predilute: Antibody Diluent Buffer

Concentrate: Tris Buffer, pH 7.3 - 7.7, with 1% BSA

<b>Preservative</b>	< 0.1% Sodium Azide
<b>Storage</b>	Store at 2-8°C. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	MutS Homolog 2 (MSH2) is a protein involved in the mismatch-repair pathway. This protein is commonly associated with hereditary non-polyposis colorectal cancer, and mutations in this gene are correlated with the development of sporadic colorectal carcinoma. Expression levels of MSH2 are abnormally low in a high percentage of patients with microsatellite instability, as well as endometrial and ovarian cancers. Use of Anti-MSH2 is optimized when paired in an IHC panel with antibodies against MSH6, MLH1, and PMS2. Reports have shown Anti-MSH2 to be useful in the detection of the protein in a number of normal and neoplastic tissues, and for identifying a loss of MSH2 in tumors that are microsatellite-unstable.
<b>Keywords</b>	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 INFORMATION

<b>Gene Name</b>	MSH2 mutS homolog 2 [ Homo sapiens (human) ]
<b>Official Symbol</b>	MSH2
<b>Synonyms</b>	MSH2; mutS homolog 2; FCC1; COCA1; HNPCC; LCFS2; HNPCC1; DNA mismatch repair protein Msh2; hMSH2; mutS homolog 2, colon cancer, nonpolyposis type 1;
<b>Entrez Gene ID</b>	<a href="#">4436</a>
<b>Protein Refseq</b>	NP_000242
<b>UniProt ID</b>	<a href="#">P43246</a>
<b>Chromosome Location</b>	2p21
<b>Pathway</b>	BRCA1-associated genome surveillance complex (BASC); Colorectal cancer; DNA Repair; Direct p53 effectors; Integrated Breast Cancer Pathway; Integrated Cancer pathway; Mismatch Repair; Mismatch repair;
<b>Function</b>	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; 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; guanine/thymine mispair binding; heteroduplex DNA loop binding; contributes\_to magnesium ion binding; contributes\_to mismatched DNA binding; contributes\_to oxidized purine DNA binding; protein C-terminus binding; protein binding; contributes\_to protein binding; protein homodimerization activity; protein kinase binding; contributes\_to single guanine insertion binding; contributes\_to single thymine insertion binding; contributes\_to single-stranded DNA binding;

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