

## Mouse anti-Human MSH2 Monoclonal Antibody | anti-MSH2 antibody

MSH2 (DNA Mismatch Repair Marker)

| CATALOG # | HOST  | REACTIVITY | APPLICATIONS                                                         |
|-----------|-------|------------|----------------------------------------------------------------------|
| AAA23925  | Mouse | Human      | Flow Cytometry, Functional Assay, Western Blot, Immunohistochemistry |

### PRODUCT SYNONYMS

MSH2; Monoclonal Antibody; MSH2 (DNA Mismatch Repair Marker); BAT26; COCA1; DNA mismatch repair protein Msh2; FCC1; hMSH2; HNPCC1; LCFS2; MutS homolog 2; MutS homolog 2 colon cancer nonpolyposis type 1; MutS protein homolog 2; anti-MSH2 antibody

### PRODUCT SPECIFICATIONS

|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Reactivity                                     | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Clonality                                      | Monoclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Isotype                                        | IgG1, kappa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Clone Number                                   | MSH2/2622                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Specificity                                    | Mutations in DNA mismatch repair genes are associated with hereditary nonpolyposis colorectal cancer (HNPCC). Initially, inherited mutations in the MSH2 and MLH1 homologs of the bacterial DNA mismatch repair genes MutS and MutL were found at high frequency in HNPCC and were shown to be associated with microsatellite instability. The demonstration that 10 to 45% of pancreatic, gastric, breast, ovarian and small cell lung cancers also display microsatellite instability has been interpreted to suggest that DNA mismatch repair is not restricted to HNPCC tumors but is a common feature in tumor initiation or progression. |
| Purity/Purification                            | Purified                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Form/Format                                    | Purified Ab without BSA and Azide at 1.0mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Sequence Length                                | 934                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Applicable Applications for anti-MSH2 antibody | FCM/FACS (Flow Cytometry), WB (Western Blot), IHC (Immunohistochemistry)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Application Notes                              | Flow Cytometry (1-2ug/million cells)<br>Immunofluorescence (1-2ug/ml)<br>Western Blot (1-2ug/ml)<br>Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 30 min at RT) (Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95&degC followed by cooling at RT for 20 minutes)<br>Optimal dilution for a specific application should be determined                                                                                                                                                                                                                             |
| Positive Control                               | A549 or HepG2 cells. Colon, Thyroid, Testis or Lymph Node.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Immunogen                                      | Recombinant fragment (around aa 327-427) of human MSH2 protein (exact sequence is proprietary)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Cellular Localization                          | Nuclear                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Hu-chromosome Location                         | 2p21-p16.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Preparation and Storage                        | Antibody without azide: store at -20 to -80 degree C.<br>Non-hazardous. No MSDS required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

IMAGES



IF (Immunofluorescence)



SDS-PAGE  
SDS-PAGE Analysis of Purified MSH2 Mouse Monoclonal Antibody (MSH2/2622).  
Confirmation of Purity and Integrity of Antibody



FCM (Flow Cytometry)  
Flow Cytometric Analysis of A549 cells using MSH2 Mouse Monoclonal Antibody (MSH2/2622) followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).



WB (Western Blot)  
Western Blot Analysis of human HepG2, A549, and A431 cell lysate using MSH2 Mouse Monoclonal Antibody (MSH2/2622).



IHC (Immunohistochemistry)  
Formalin-fixed, paraffin-embedded human Basal Cell Carcinoma stained with MSH2 Mouse Monoclonal Antibody (MSH2/2622).



IHC (Immunohistochemistry)  
Formalin-fixed, paraffin-embedded human Thyroid Carcinoma stained with MSH2 Mouse Monoclonal Antibody (MSH2/2622).

ADDITIONAL INFORMATION

|            |                                                                         |
|------------|-------------------------------------------------------------------------|
| References | Palombo, F., et al. 1994. Mismatch repair and cancer. Nature 367: 417-4 |
|------------|-------------------------------------------------------------------------|

NCBI AND UNIPROT INFORMATION

|                                  |                                          |
|----------------------------------|------------------------------------------|
| NCBI GI #                        | 1171032                                  |
| NCBI GeneID                      | 4436                                     |
| UniProt Accession #              | P43246                                   |
| Molecular Weight                 | 100kDa                                   |
| NCBI Official Full Name          | DNA mismatch repair protein Msh2         |
| NCBI Official Synonym Full Names | mutS homolog 2                           |
| NCBI Official Symbol             | MSH2                                     |
| NCBI Official Synonym Symbols    | FCC1; COCA1; HNPCC; LCFS2; hMSH2; HNPCC1 |
| NCBI Protein Information         | DNA mismatch repair protein Msh2         |
| UniProt Protein Name             | DNA mismatch repair protein Msh2         |
| UniProt Gene Name                | MSH2                                     |
| UniProt Synonym Gene Names       | hMSH2                                    |
| UniProt Entry Name               | MSH2_HUMAN                               |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.