

## MSH 6 (EP49)

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 649 A,B,C	0.1,0.5,1.0mL	1:100
Prediluted	GB 649 AA	6.0mL	Ready to use

### PRODUCT DESCRIPTION -

MSH6 (MutS Homolog 6) is a crucial protein involved in the DNA mismatch repair (MMR) system. This protein plays an essential role in recognizing and repairing errors in DNA that occur during DNA replication, such as base mismatches or small insertion-deletion loops. MSH6 forms a complex with another protein, MSH2, and together, they help detect these errors. The MSH2-MSH6 complex is particularly important for recognizing mismatches involving base pairs and initiating the repair process, contributing to maintaining genomic stability.

### INTENDED USE -

Intended for In Vitro Diagnostic Applications

MSH6 (EP49) is a rabbit monoclonal antibody that is intended for professional laboratory use after the initial diagnosis of tumor has been made by conventional histopathology using nonimmunologic histochemical stains, in the qualitative identification of MSH6 (EP49) protein by immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist as an aid in making any other clinical determinations.

### SUMMARY AND EXPLANATION -

The MSH6 antibody (EP49) is a monoclonal antibody specifically designed to bind to and detect the MSH6 protein. "EP49" refers to the specific clone of the antibody that was developed, and it targets a particular epitope on the MSH6 protein. This antibody is primarily used in immunohistochemistry (IHC), a technique that allows visualization of MSH6 expression in tissue sections.

### PRINCIPLE OF PROCEDURE -

The identification of antigens in tissues and cells is a multi-step immunohistochemistry procedure.

The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, either a one-step or two-step detection

method may be employed. A single-step procedure will utilize a polymer tagged with an enzyme that attaches to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to bind the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

**SOURCE** - Rabbit monoclonal

**SPECIES REACTIVITY** - Human; other species not tested

**CLONE**- EP49

**ISOTYPE** - IgG

**PROTEIN CONCENTRATION** - Call for lot specific Ig concentration.

**EPITOPE/ANTIGEN** - Synthetic peptide corresponding to internal region of human MSH6 protein.

**CELLULAR LOCALISATION** - Nucleus

**POSITIVE TISSUE CONTROL** - Colon Mucosa, Colon Carcinoma

**KNOWN APPLICATIONS**- Immunohistochemistry

30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

**SUPPLIED AS** - PBS, pH 7.6, with 1% BSA ; Contains - 0.1% sodium azide

**STORAGE AND STABILITY** -

Store at 2°C to 8°C. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C

**Materials required but not provided** -

- 1) Positive tissue control -Colon Mucosa, Colon Carcinoma
- 2) Negative control tissue(internal or external)
- 3) Microscope slides and coverslips
- 4) Staining jars or baths
- 5) Timer
- 6) Xylene or xylene substitute
- 7) Ethanol or reagent alcohol
- 8) Deionized or distilled water
- 9) Heating equipment or enzyme for tissue pretreatment step
- 10)Detection system
- 11)Chromogen
- 12)Wash buffer
- 13)Hematoxylin
- 14)Antibody diluents
- 15)Peroxide block
- 16)Light microscope
- 17)Mounting medium

#### **LIMITATIONS -**

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.

