MSH 6 (SP93)

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 693 A,B,C	0.1,0.5,1.0mL	1:100
Prediluted	GB 693 AA	6.0mL	Ready to use

PRODUCT DESCRIPTION -

MSH6 (MutS Homolog 6) is a gene that encodes a protein involved in DNA mismatch repair (MMR). MMR is a critical process that helps maintain genomic stability by correcting errors that occur during DNA replication, such as base mismatches and insertion-deletion loops. MSH6 forms a heterodimer with MSH2, a core component of the MMR system. This complex is specifically responsible for recognizing and binding to mismatched DNA bases and initiating repair processes.

INTENDED USE -

Intended for In Vitro Diagnostic Applications
MSH6 (SP93) 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 (SP93) 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, often referred to as *SP93*, is a specific antibody designed to detect MSH6 protein in various biological samples, such as tissue sections or cell lysates. It is called "SP93" because of the particular epitope (antigenic determinant) that it targets on the MSH6 protein.

The SP93 antibody is commonly used in immunohistochemistry (IHC) and other laboratory techniques to study the expression of MSH6 in tissues. Its applications include identifying MSH6's role in disease processes, particularly in cancers like colorectal cancer and endometrial cancer, where MMR dysfunction can lead to the accumulation of mutations.

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- SP93

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 - Colorectal 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 95ºC 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 2ºC to 8ºC. 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 2ºC to 8ºC

Materials required but not provided -

1) Positive tissue control -Colorectal 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.