

## MSH6; Clone MSH6/3091

Catalog Number	Volume
A00162-0002 (Ready-To-Use)	2 ml
A00162-0007 (Ready-To-Use)	7 ml
A00162-0025 (Ready-To-Use)	25 ml
A00162-C.1 (Concentrate)	0.1 ml
A00162-C (Concentrate)	1 ml

### Intended Use

For In Vitro Diagnostic use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy. Any diagnostic interpretation of the results of this antibody is to 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.

### Description

**Species:** Mouse  
**Immunogen:** Recombinant fragment of human MSH6 protein (around aa 374-540) (exact sequence is proprietary).

**Clone:** MSH6/3091  
**Isotype:** IgG2b, Kappa.  
**Entrez Gene ID:** 2956  
**Hu Chromosome Loc.:** 2p16.3

**Synonyms:** DNA mismatch repair protein MSH6, G/T mismatch-binding protein, GTBP, GTMBP, hMSH6, HNPCC5, HSAP, MSH6, mutS (E. coli) homolog 6, MutS alpha 160kDa subunit, p160, Sperm associated protein.

**Mol. Wt. of Antigen:** 163kDa  
**Format:** Ready-To-Use antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

Concentrate antibody is provided at 200µg/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% Sodium Azide.

**Specificity:** This antibody reacts with a 163kDa protein identified as MSH6. Positive staining for MSH6 is seen in the nuclei of colon carcinomas, stromal cells and lymphocytes.

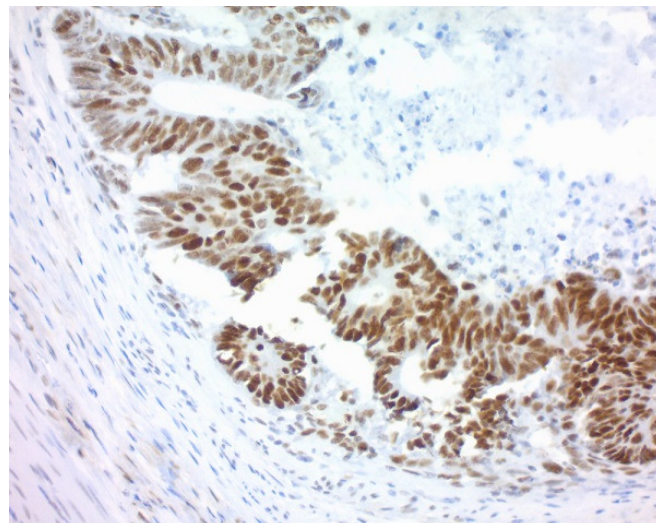
**Background:** The finding that mutations in DNA mismatch repair genes are associated with hereditary nonpolyposis colorectal cancer (HNPCC) has resulted in considerable interest in the understanding of the mechanism of DNA mismatch repair. Initially, inherited mutations in the MSH2 and MLH1 homologs of the bacterial DNA mismatch repair genes mutS and mutL were demonstrated at high frequency in HNPCC and were shown to be associated with microsatellite instability. A member of the mismatch repair family, GTBP (also designated MSH6), is an MSH2-related protein that binds to DNA containing G/T mismatches. Findings suggest that the mismatch-binding factor in human cells is composed of a heterodimer of GTBP and MSH2. Human, Others-not known

**Species Reactivity:** Human, Others-not known  
**Positive Control:** HCT116, MCF-7 cells, Human colon carcinoma (IHC).

**Cellular Localization:** Nuclear.

**Titer/Working Dilution:** Ready-to-Use: No further dilution required.  
Concentrate: 1:200-400 for FFPE Immunohistochemistry.

**Microbiological State:** Nonsterile.



Human Colon Carcinoma stained using MSH6; Clone MSH6/3091. Pretreatment with Tris-EDTA HIER Solution pH 9.0 for 5 minutes in a pressure cooker at 21psi. Antibody was visualized using PolyTek Anti-Mouse Polymerized HRP and DAB Chromogen/Substrate (High Contrast). Counterstained with Hematoxylin, Mayer's (Lillie's Modification). Final magnification 200X.

### Procedure

1. **Tissue Section Pretreatment (Required):** Staining of formalin fixed, paraffin embedded tissue sections is significantly enhanced by pretreatment with pH 8-9 HIER Solution (see ScyTek catalog# ETA or TES for instructions).

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

### Materials and Reagents Required but not Provided


- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)
- HIER Retrieval Solution
- Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
- Mounting medium and coverslips

**Note:** ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at [scytex.com](http://scytex.com).

### Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Storage: 2° C  8° C

 ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.



Emergo Europe  
Prinsessegracht 20  
2514 AP The Hague, The Netherlands

**Limitations**

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

**Precautions**

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at [scytek.com](http://scytek.com)

**References**

1. Peltomaki, P., et al. 1993. Genetic mapping of a locus predisposing to human colorectal cancer. Science 260: 810-812.

**Warranty**

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Storage: 2° C



8° C



ScyTek Laboratories, Inc.  
205 South 600 West  
Logan, UT 84321  
U.S.A.



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Prinsessegracht 20  
2514 AP The Hague, The Netherlands