

## MSH2 Antibody

### Datasheet

For Research Use Only

Description	Catalog No.	Size
MSH2 Concentrate	FP-A026-01	0.1 ml
MSH2 Concentrate	FP-A026-10	1 ml
MSH2 Predilute	FP-A026-70	7 ml
MSH2 Predilute	FP-A026-250	25 ml

### Description

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.

### Specifications

Clone	IHC410
Source	Mouse Monoclonal
Applications	IHC (P)
Formulation	Tris Buffer, pH 7.3 - 7.7, with 1% BSA and <0.1% Sodium Azide

### IHC Procedure\*

Positive Control Tissue	Colon Mucosa, Colon Carcinoma
Dilution Range	1:50– 1:200
Pretreatment	Perform heat-induced epitope retrieval (HIER) at pH for 10 to 30 minutes
Incubation Time and Temp	10 to 30 minutes at room temperature
Detection	Refer to the corresponding user manual for detection system

### Result

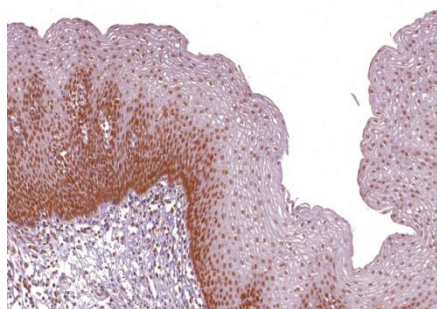


Figure MSH2 on Esophagus

## Storage and Handling

Must store the reagent at 2-8 °C. Do not freeze. Do not use the reagent after expiration date on vial. To ensure proper stability and delivery of the antibody after each run, replace the cap and immediately place the bottle in a refrigerator in an upright position. Positive and negative controls should be simultaneously run with unknown specimens, as there are no conclusive characteristics to suggest instability of the antibody.

## Precautions

**The product is for research use only.** Do not use for diagnosis purpose. Ensure proper handling procedures are used with all reagents. Always wear laboratory coats, disposable gloves, and other appropriate laboratory equipment when handling reagents. Do not ingest reagents, and avoid contact with eyes and mucous membranes. Wash eyes with copious amounts of water if contact occurs.

## References

1. **Pal T**, et al. “A review of the clinical relevance of mismatch-repair deficiency in ovarian cancer.” *Cancer*. 2008; 113:733-42.
2. **Rigau V**, et al. “ Microsatellite instability in colorectal carcinoma. The comparison of immunohistochemistry and molecular biology suggests a role for hMSH6 [correction of hMLH6] immunostaining.” *Anticancer Res*. 2003; 23:1773-8.
3. **Renkonen E**, et al. “Altered expression of MLH1, MSH2, and MSH6 in predisposition to hereditary nonpolyposis colorectal cancer.” *Arch Pathol Lab Med*. 2003; 127:694-700.
4. **Hoedema R**, et al. “Genetic testing for hereditary nonpolyposis colorectal cancer.” *Am Surg*. 2003; 69:387-92.
5. **Christensen M**, et al. “Antibody-based screening for hereditary nonpolyposis colorectal carcinoma compared with microsatellite analysis and sequencing.” *Cancer*. 2002; 95:2422-30.
6. **Wahlberg SS**, et al. “Evaluation of microsatellite instability and immunohistochemistry for the prediction of germ-line MSH2 and MLH1 mutations in hereditary nonpolyposis colon cancer families.” *Cancer Res*. 2002; 62:3485-92.
7. **Lanza G**, et al. “Immunohistochemical pattern of MLH1/MSH2 expression is related to clinical and pathological features in colorectal adenocarcinomas with microsatellite instability.” *Mod Pathol*. 2002; 15:741-9.
8. **Thibodeau SN**, et al. “Altered expression of hMSH2 and hMLH1 in tumors with microsatellite instability and genetic alterations in mismatch repair genes.” *Cancer Res* 1996; 56:4836-40.

## Technical Support

Contact FemtoPath Technical Support at +886232338585 or email to [femtopath@hongjing.com.tw](mailto:femtopath@hongjing.com.tw) for assistance with more questions regarding this product.