

**Rabbit Anti-MSH2 [MD178R]: RM0191, RM0191RTU7**

**Intended Use:** For Research Use Only

**Description:** MutS homologue 2 (MSH2) is a DNA mismatch repair protein that belongs to the MutS family. MSH2 forms two different heterodimers: MutS alpha (MSH2-MSH6) and MutS beta (MSH2-MSH3), which bind to DNA mismatches thereby initiating DNA repair. Heterozygous mutations in the MSH2 gene are a cause of hereditary nonpolyposis colorectal cancer (HNPCC), forming a specific mispair binding complex with MSH3 and MSH6. MutS alpha may also play a role in DNA homologous recombination repair. MSH2 is found in normal cells. Loss of MSH2 is linked to hereditary nonpolyposis colorectal cancer (HNPCC) and MSI-positive endometrial and ovarian cancers. Immunohistochemical analysis of MSH2 expression has been reported to be a practical and reliable method for the routine detection of the vast majority of MSI-H colorectal adenocarcinomas.

**Specifications**

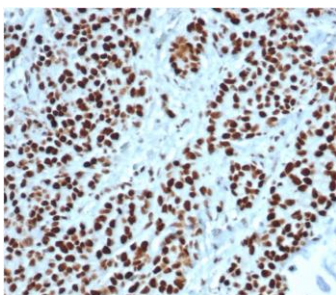
Clone: MD178R  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human  
 Immunogen: Recombinant full-length human MSH2 protein  
 Localization: Nucleus  
 Formulation: Protein A/G purified antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, WB  
 Package:

Description	Catalog No.	Size
MSH2 Concentrated	RM0191	1 ml
MSH2 Prediluted	RM0191RTU7	7 ml

**IHC Procedure\***

Positive Control Tissue: Colon, HNPCC  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human colon stained with anti-MSH2 using DAB

**References:**

1. Functional analysis of MSH2 unclassified variants found in suspected Lynch syndrome patients reveals pathogenicity due to attenuated mismatch repair. Wienders EA et al. J Med Genet. 2014.
2. Expression of MLH1 and MSH2 in urothelial carcinoma of the renal pelvis. Ehsani L et al. Tumour Biol. 2014.
3. Expression of ERCC1, MSH2 and PARP1 in non-small cell lung cancer and prognostic value in patients treated with platinum-based chemotherapy. Xie KJ et al. Asian Pac J Cancer Prev. 2014.