

Rabbit Anti-MLH1 [MD175R]: RM0188, RM0188RTU7

Intended Use: For Research Use Only

Description: The repair of mismatch DNA is essential to maintaining the integrity of genetic information over time. An alteration of microsatellite repeats is the result of slippage owing to strand misalignment during DNA replication and is referred to as microsatellite instability (MSI). These defects in DNA repair pathways have been related to human carcinogenesis. The importance of mismatch repair genes became apparent with the identification of the genetic basis for hereditary nonpolyposis colon cancer (HNPCC). MSH-2 is involved in the initial cognition of mismatch nucleotides during the replication mismatch repair process. It is thought that after MSH2 binds to a mismatched DNA duplex it is joined by a heterodimer of MLH1 and PMSH, which together help facilitate the later steps in mismatch repair.

Specifications

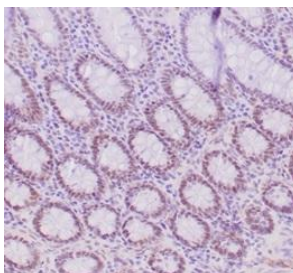
Clone: MD175R
Source: Rabbit
Isotype: IgG
Reactivity: Human
Immunogen: Recombinant full-length human MLH1 protein
Localization: Nucleus
Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC
Package:

| Description | Catalog No. | Size |
|-------------------|-------------|------|
| MLH1 Concentrated | RM0188 | 1 ml |
| MLH1 Prediluted | RM0188RTU7 | 7 ml |

IHC Procedure*

Positive Control Tissue: Colon cancer
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 carcinoma stained with anti-MLH1 using DAB

References:

1. Involvement of mouse Mlh1 in DNA mismatch repair and meiotic crossing over. Baker SM, et al. Nat Genet. 13(3):336-342, 1996.
2. Dual requirement in yeast DNA mismatch repair for MLH1 and PMS1, two homologs of the bacterial mutL gene. Prolla TA, et al. Mol Cell Biol. 14(1):407-415, 1994.
3. MLH1, PMS1, and MSH2 interactions during the initiation of DNA mismatch repair in yeast. Prolla TA, et al. Science. 265(5175):1091-1093, 1994.