

Mouse Anti-MLH1 [G168-728]: MC0550, MC0550RTU7

Intended Use: For Research Use Only

Description: This antibody recognizes the human and mouse MLH1 (80-85kDa). 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. This antibody cross reacts with human, hamster and rat.

Specifications

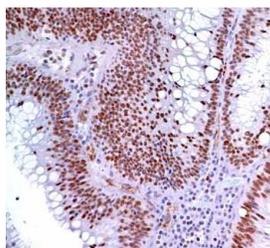
Clone: G168-728
Source: Mouse
Reactivity: Human
Isotype: IgG2a/k
Localization: Nucleus
Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC
Package:

Description	Catalog No.	Size
MLH1 Concentrated	MC0550	1 ml
MLH1 Prediluted	MC0550RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Colon cancer
Concentrated Dilution: 25-100
Pretreatment: Citrate pH6.0 or EDTA pH8.0, 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 tubular adenoma 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.