

**MLH1 Antibody (monoclonal) (M02)****Mouse monoclonal antibody raised against a full length recombinant MLH1.****Catalog # AT2879a****Specification**

---

**MLH1 Antibody (monoclonal) (M02) - Product Information**

Application	WB, IHC, IF, E
Primary Accession	<a href="#">P40692</a>
Other Accession	<a href="#">BC006850</a>
Reactivity	Human
Host	mouse
Clonality	Monoclonal
Isotype	IgG2a Kappa
Calculated MW	84601

**MLH1 Antibody (monoclonal) (M02) - Additional Information****Gene ID** 4292**Other Names**

DNA mismatch repair protein Mlh1, MutL protein homolog 1, MLH1, COCA2

**Target/Specificity**

MLH1 (AAH06850, 1 a.a. ~ 756 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

IHC~~1:100~500

IF~~1:50~200

E~~N/A

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

MLH1 Antibody (monoclonal) (M02) is for research use only and not for use in diagnostic or therapeutic procedures.

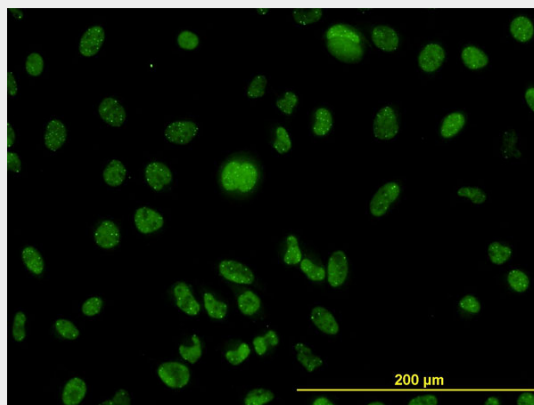
**MLH1 Antibody (monoclonal) (M02) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

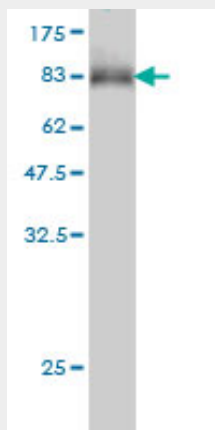
- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

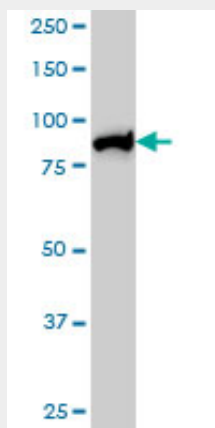
## MLH1 Antibody (monoclonal) (M02) - Images



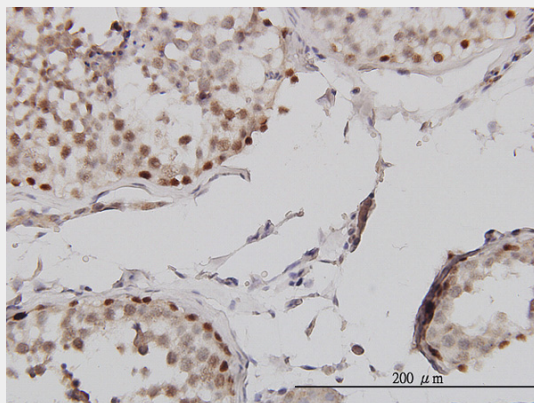
Immunofluorescence of monoclonal antibody to MLH1 on HeLa cell. [antibody concentration 10 ug/ml]



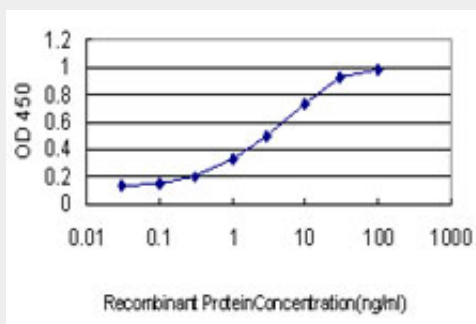
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (108.9 KDa) .



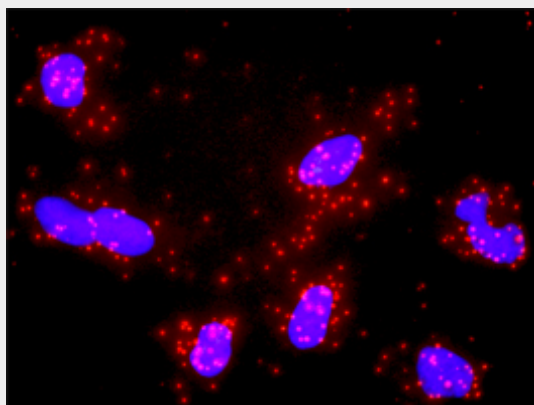
MLH1 monoclonal antibody (M02), clone M1 Western Blot analysis of MLH1 expression in Hela S3 NE ( (Cat # AT2879a )



Immunoperoxidase of monoclonal antibody to MLH1 on formalin-fixed paraffin-embedded human testis. [antibody concentration 1 ug/ml]



Detection limit for recombinant GST tagged MLH1 is approximately 0.03ng/ml as a capture antibody.



Proximity Ligation Analysis of protein-protein interactions between MSH2 and MLH1 HeLa cells were stained with anti-MSH2 rabbit purified polyclonal 1:1200 and anti-MLH1 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).

### MLH1 Antibody (monoclonal) (M02) - Background

This gene was identified as a locus frequently mutated in hereditary nonpolyposis colon cancer (HNPCC). It is a human homolog of the E. coli DNA mismatch repair gene mutL, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Additional transcript

variants have been described, but their full-length natures have not been determined.

#### **MLH1 Antibody (monoclonal) (M02) - References**

Association between Genetic Polymorphisms in the XRCC1, XRCC3, XPD, GSTM1, GSTT1, MSH2, MLH1, MSH3, and MGMT Genes and Radiosensitivity in Breast Cancer Patients. Mangoni M, et al. Int J Radiat Oncol Biol Phys, 2010 Aug 11. PMID 20708344. A large-scale candidate gene approach identifies SNPs in SOD2 and IL13 as predictive markers of response to preoperative chemoradiation in rectal cancer. Ho-Pun-Cheung A, et al. Pharmacogenomics J, 2010 Jul 20. PMID 20644561. Lynch syndrome: the influence of environmental factors on extracolonic cancer risk in hMLH1 c.C1528T mutation carriers and their mutation-negative sisters. Blokhuis MM, et al. Fam Cancer, 2010 Sep. PMID 20640520. Risk of urothelial bladder cancer in Lynch syndrome is increased, in particular among MSH2 mutation carriers. van der Post RS, et al. J Med Genet, 2010 Jul. PMID 20591884. Comprehensive screen of genetic variation in DNA repair pathway genes and postmenopausal breast cancer risk. Monsees GM, et al. Breast Cancer Res Treat, 2010 May 23. PMID 20496165.