

**MCM3 Antibody (monoclonal) (M01)****Mouse monoclonal antibody raised against a partial recombinant MCM3.****Catalog # AT2819a****Specification**

---

**MCM3 Antibody (monoclonal) (M01) - Product Information**

|                   |                           |
|-------------------|---------------------------|
| Application       | WB, IF, E                 |
| Primary Accession | <a href="#">P25205</a>    |
| Other Accession   | <a href="#">NM_002388</a> |
| Reactivity        | Human, Mouse              |
| Host              | mouse                     |
| Clonality         | Monoclonal                |
| Isotype           | IgG2a Lambda              |
| Calculated MW     | 90981                     |

**MCM3 Antibody (monoclonal) (M01) - Additional Information****Gene ID** 4172**Other Names**

DNA replication licensing factor MCM3, DNA polymerase alpha holoenzyme-associated protein P1, P1-MCM3, RLF subunit beta, p102, MCM3

**Target/Specificity**

MCM3 (NP\_002379, 699 a.a. ~ 808 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

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**

MCM3 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

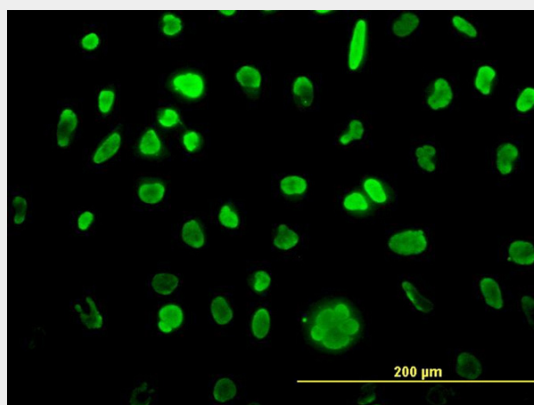
**MCM3 Antibody (monoclonal) (M01) - Protocols**

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

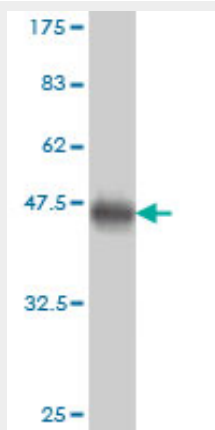
- [Western Blot](#)

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

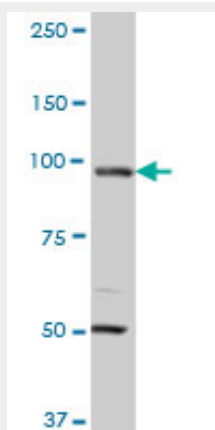
### MCM3 Antibody (monoclonal) (M01) - Images



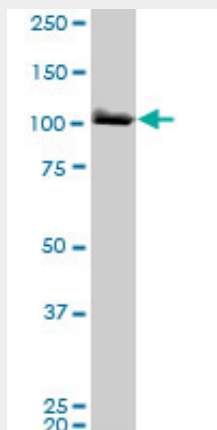
Immunofluorescence of monoclonal antibody to MCM3 on HeLa cell. [antibody concentration 10 ug/ml]



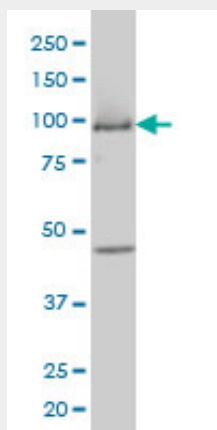
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (37.84 KDa) .



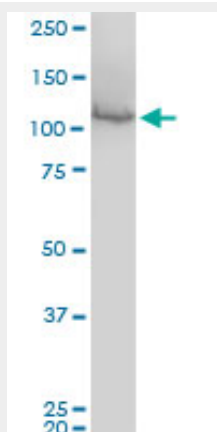
MCM3 monoclonal antibody (M01), clone 4F7. Western Blot analysis of MCM3 expression in human colon.



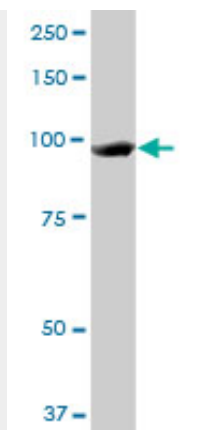
MCM3 monoclonal antibody (M01), clone 4F7. Western Blot analysis of MCM3 expression in HeLa (Cat # AT2819a)



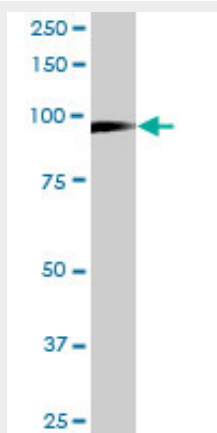
MCM3 monoclonal antibody (M01), clone 4F7 Western Blot analysis of MCM3 expression in COLO 320 HSR (Cat # AT2819a)



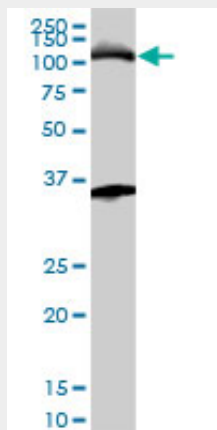
MCM3 monoclonal antibody (M01), clone 4F7. Western Blot analysis of MCM3 expression in Raw 264.7 (Cat # AT2819a)



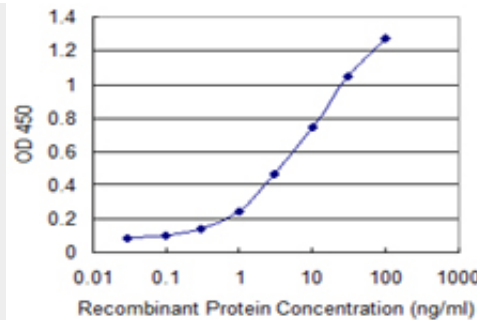
MCM3 monoclonal antibody (M01), clone 4F7. Western Blot analysis of MCM3 expression in A-431 (Cat # AT2819a)



MCM3 monoclonal antibody (M01), clone 4F7. Western Blot analysis of MCM3 expression in Daoy.



MCM3 monoclonal antibody (M01), clone 4F7. Western Blot analysis of MCM3 expression in K-562 (Cat # AT2819a)



Detection limit for recombinant GST tagged MCM3 is 0.1 ng/ml as a capture antibody.

### **MCM3 Antibody (monoclonal) (M01) - Background**

The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are involved in the initiation of eukaryotic genome replication. The hexameric protein complex formed by MCM proteins is a key component of the pre-replication complex (pre\_RC) and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. This protein is a subunit of the protein complex that consists of MCM2-7. It has been shown to interact directly with MCM5/CDC46. This protein also interacts with, and thus is acetylated by MCM3AP, a chromatin-associated acetyltransferase. The acetylation of this protein inhibits the initiation of DNA replication and cell cycle progression.

### **MCM3 Antibody (monoclonal) (M01) - References**

Human cytomegalovirus IE86 protein binds to cellular Mcm3 protein but does not inhibit its binding to the Epstein-Barr virus oriP in U373MG-p220.2 cells. Song YJ, et al. *Acta Virol*, 2010. PMID 20545442. Centrosome-related genes, genetic variation, and risk of breast cancer. Olson JE, et al. *Breast Cancer Res Treat*, 2010 May 28. PMID 20508983. Analysis of interaction partners of H4 histone by a new proteomics approach. Saade E, et al. *Proteomics*, 2009 Nov. PMID 19862764. Minichromosome maintenance protein 3 is a candidate proliferation marker in papillary thyroid carcinoma. Lee YS, et al. *Exp Mol Pathol*, 2010 Feb. PMID 19818763. Phosphorylation of MCM3 on Ser-112 regulates its incorporation into the MCM2-7 complex. Lin DI, et al. *Proc Natl Acad Sci U S A*, 2008 Jun 10. PMID 18524952.