

**Anti-MCM3 Antibody**  
**Catalog # ABO10966****Specification**

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**Anti-MCM3 Antibody - Product Information**

Application	WB, IHC-P, ICC
Primary Accession	<a href="#">P25205</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for DNA replication licensing factor MCM3(MCM3) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-MCM3 Antibody - Additional Information**

**Gene ID** 4172

**Other Names**

DNA replication licensing factor MCM3, 3.6.4.12, DNA polymerase alpha holoenzyme-associated protein P1, P1-MCM3, RLF subunit beta, p102, MCM3

**Calculated MW**

90981 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat  
Immunocytochemistry , 0.5-1 µg/ml, Human, -Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

**Subcellular Localization**

Nucleus.

**Protein Name**

DNA replication licensing factor MCM3

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the N-terminus of human MCM3(13-27aa REAQRDYLDLDEE), identical to the related rat and mouse sequences.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

**Sequence Similarities**

Belongs to the MCM family.

**Anti-MCM3 Antibody - Protein Information**

**Name** MCM3 ([HGNC:6945](#))

**Function**

Acts as a component of the MCM2-7 complex (MCM complex) which is the replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. Core component of CDC45-MCM-GINS (CMG) helicase, the molecular machine that unwinds template DNA during replication, and around which the replisome is built (PubMed: [32453425](http://www.uniprot.org/citations/32453425), PubMed: [34694004](http://www.uniprot.org/citations/34694004), PubMed: [34700328](http://www.uniprot.org/citations/34700328), PubMed: [35585232](http://www.uniprot.org/citations/35585232)). The active ATPase sites in the MCM2-7 ring are formed through the interaction surfaces of two neighboring subunits such that a critical structure of a conserved arginine finger motif is provided in trans relative to the ATP-binding site of the Walker A box of the adjacent subunit. The six ATPase active sites, however, are likely to contribute differentially to the complex helicase activity (PubMed: [32453425](http://www.uniprot.org/citations/32453425)). Required for the entry in S phase and for cell division (Probable).

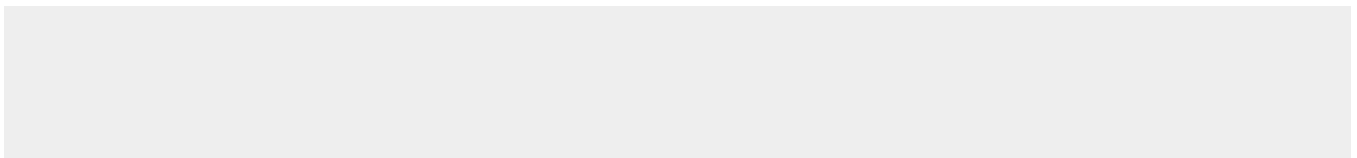
**Cellular Location**

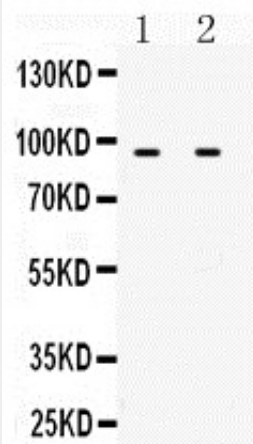
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

**Anti-MCM3 Antibody - Protocols**

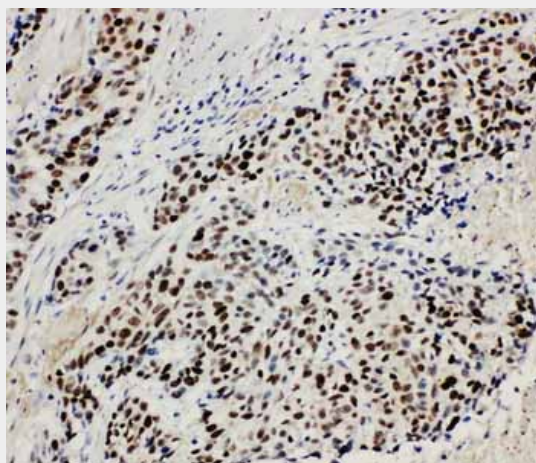
Provided below are standard protocols that you may find useful for product applications.

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

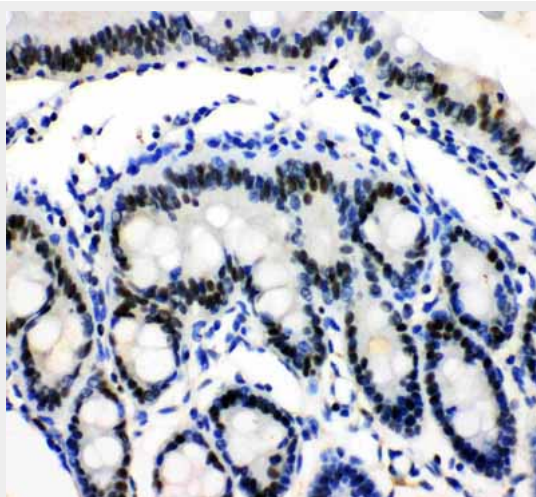
**Anti-MCM3 Antibody - Images**



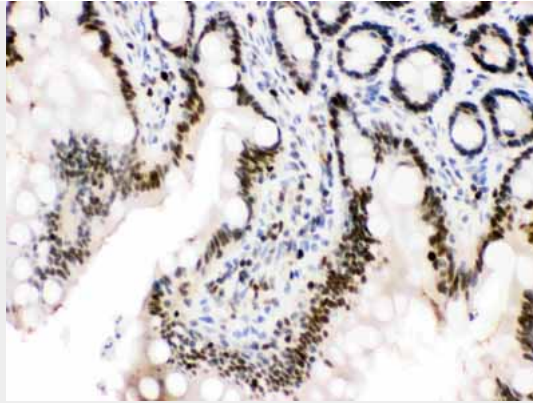
Anti-MCM3 antibody, ABO10966, Western blottingAll lanes: Anti MCM3 (ABO10966) at 0.5ug/mlLane 1: NIH3T3 Whole Cell Lysate at 40ugLane 2: HEPA Whole Cell Lysate at 40ugPredicted bind size: 91KDObserved bind size: 91KD



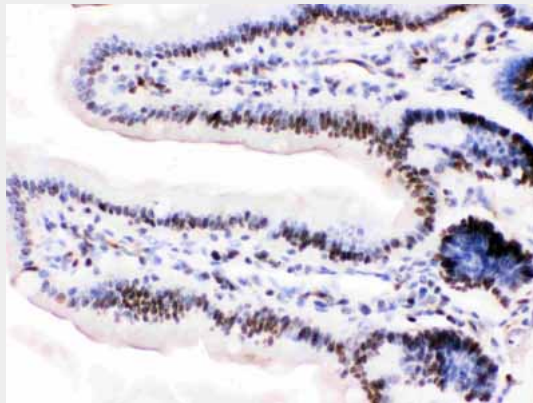
Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Human Lung Cancer Tissue



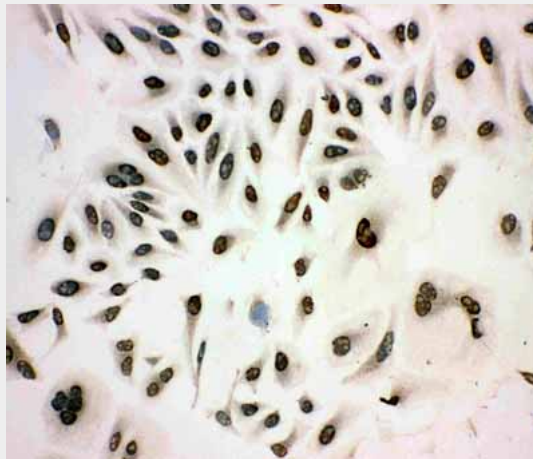
Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Rat Intestine Tissue



Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Rat Intestine Tissue



Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Mouse Intestine Tissue



Anti-MCM3 antibody, ABO10966, ICCICC: HELA Cell

#### **Anti-MCM3 Antibody - Background**

MCM3(MINICHROMOSOME MAINTENANCE, S. CEREVISIAE, HOMOLOG OF, 3), also called RLFB or P1 PROTEIN, is a protein that in humans is encoded by the MCM3 gene. MCM3 is one of the highly conserved mini-chromosome maintenance proteins(MCM) that are involved in the initiation of eukaryotic genome replication. The MCM3 gene is mapped to 6p12.2. 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.