

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

Anti-MCM3 Antibody - Product Information

Application	WB, IHC, ICC
Primary Accession	P25205
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 Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

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).

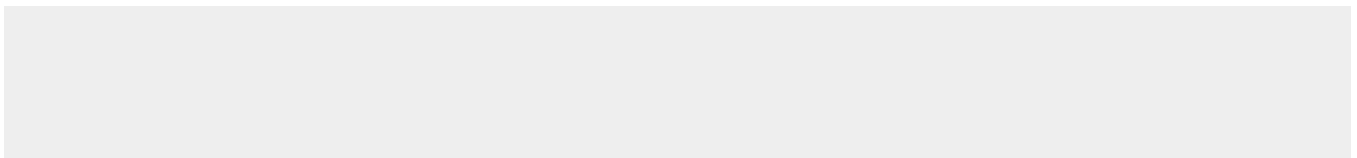
Cellular Location

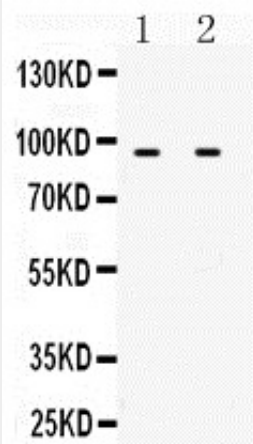
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

Anti-MCM3 Antibody - Protocols

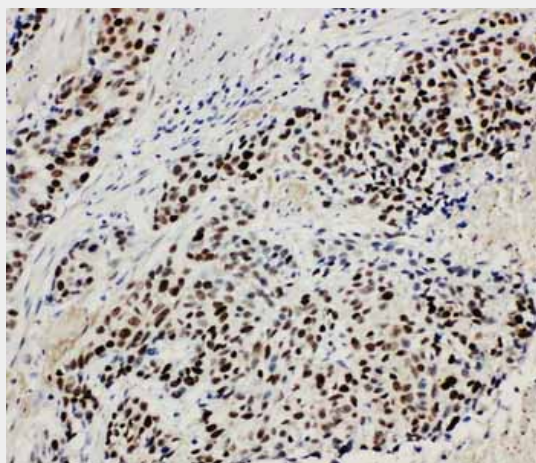
Provided below are standard protocols that you may find useful for product applications.

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

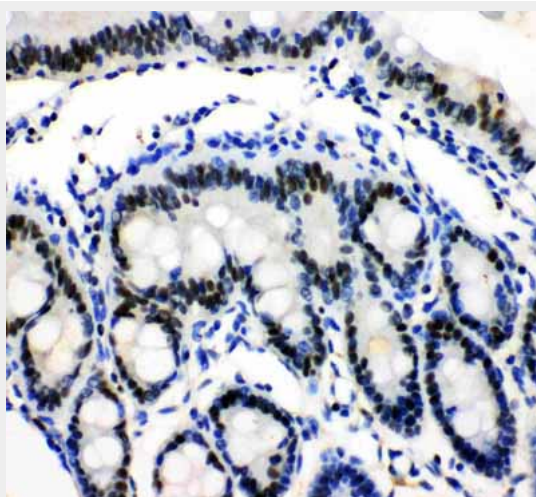
Anti-MCM3 Antibody - Images



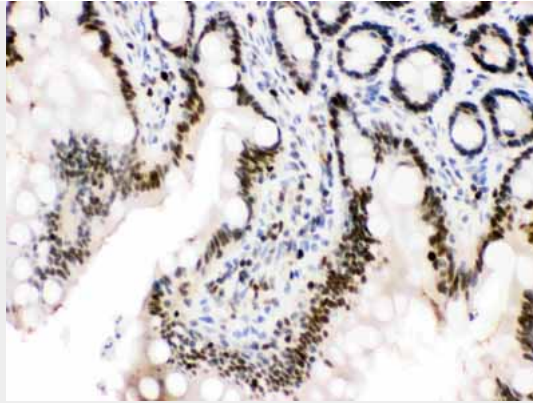
Anti-MCM3 antibody, ABO10966, Western blottingAll lanes: Anti MCM3 (ABO10966) at 0.5ug/mlLane 1: NIH3T3 Whole Cell Lysate at 40ugLane 2: HEPA Whole Cell Lysate at 40ugPredicted bind size: 91KDObserved bind size: 91KD



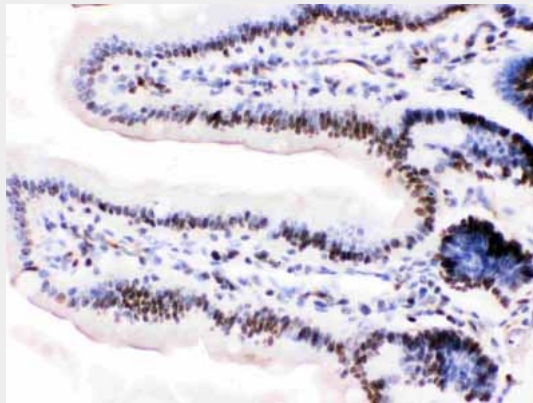
Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Human Lung Cancer Tissue



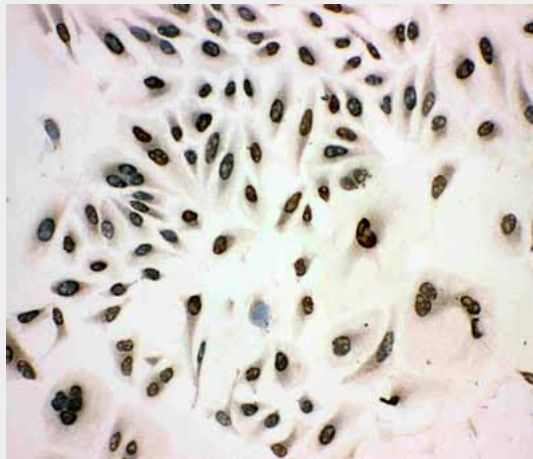
Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Rat Intestine Tissue



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.