10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

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 REAQRDYLDFLDDEE), 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 r˚Constitution, 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, PubMed:34694004, PubMed:34700328, PubMed: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). 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 Cytomety
- Cell Culture

Anti-MCM3 Antibody - Images

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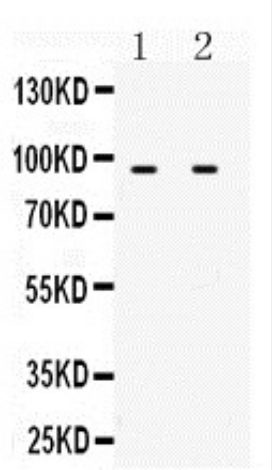
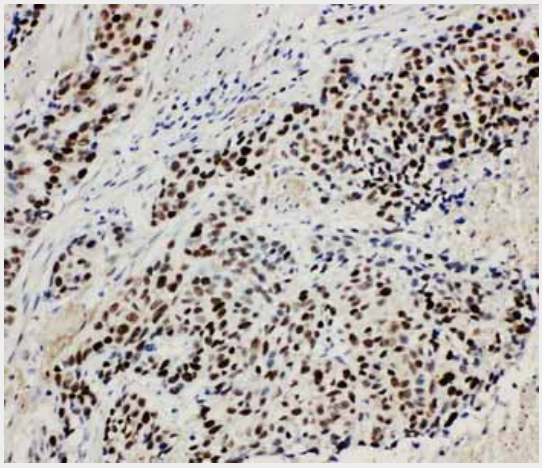
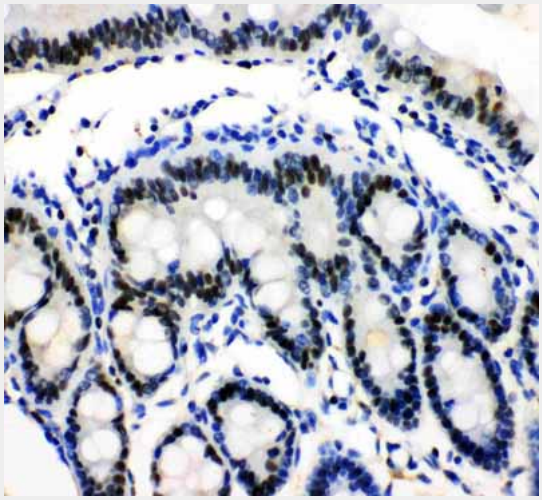


Anti-MCM3 antibody, ABO10966, Western blottingAll lanes: Anti MCM3 (ABO10966) at 0.5ug/mlLane 1: NIH3T3 Whole Cell Lysate at 40ugLane 2: HEPA Whole Cell Lysate at 40ugPredicted bind size: 91KDObserved bind size: 91KD



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



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

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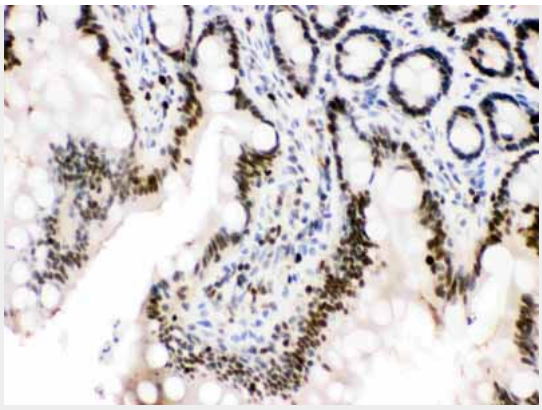
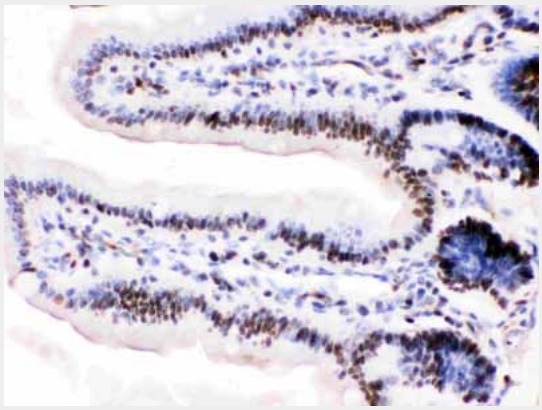
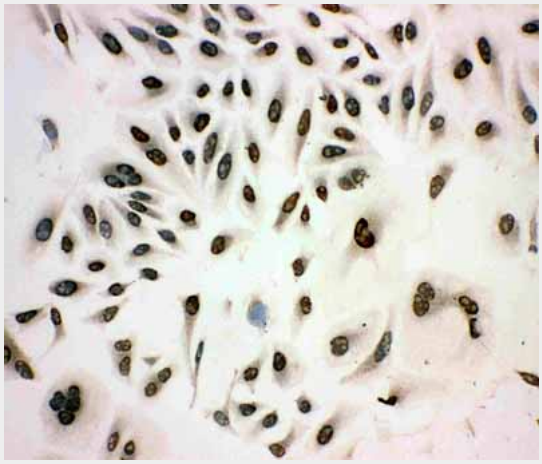


Anti-MCM3 antibody, ABO10966, IHC(P)IHC(P): Rat Intestine Tissue



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 acetlyated by MCM3AP, a chromatin-associated acetyltransferase. The acetylation of this protein inhibits the initiation of DNA replication and cell cycle progression.