

**Anti-MCM2 Antibody**  
Catalog # ABO10965**Specification****Anti-MCM2 Antibody - Product Information**

Application	WB, IHC, ICC
Primary Accession	<a href="#">P49736</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for DNA replication licensing factor MCM2(MCM2) 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-MCM2 Antibody - Additional Information**

**Gene ID** 4171

**Other Names**

DNA replication licensing factor MCM2, 3.6.4.12, Minichromosome maintenance protein 2 homolog, Nuclear protein BM28, MCM2, BM28, CCNL1, CDCL1, KIAA0030

**Calculated MW**

101896 MW KDa

**Application Details**

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

**Subcellular Localization**

Nucleus .

**Protein Name**

DNA replication licensing factor MCM2

**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 C-terminus of human MCM2(889-904aa NKFSHDLKRKMILQQF), different from the related rat and mouse sequences by two amino acids.

**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-MCM2 Antibody - Protein Information

Name MCM2 ([HGNC:6944](#))

### 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:<a href="http://www.uniprot.org/citations/32453425" target="\_blank">32453425</a>, PubMed:<a href="http://www.uniprot.org/citations/34694004" target="\_blank">34694004</a>, PubMed:<a href="http://www.uniprot.org/citations/34700328" target="\_blank">34700328</a>, PubMed:<a href="http://www.uniprot.org/citations/35585232" target="\_blank">35585232</a>). 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:<a href="http://www.uniprot.org/citations/32453425" target="\_blank">32453425</a>). Required for the entry in S phase and for cell division (PubMed:<a href="http://www.uniprot.org/citations/8175912" target="\_blank">8175912</a>). Plays a role in terminally differentiated hair cells development of the cochlea and induces cells apoptosis (PubMed:<a href="http://www.uniprot.org/citations/26196677" target="\_blank">26196677</a>).

### Cellular Location

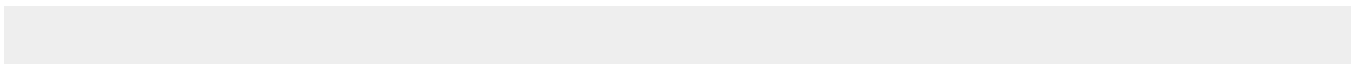
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses. {ECO:0000250|UniProtKB:P55861}

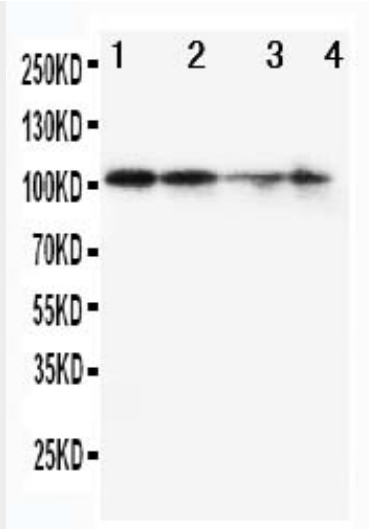
## Anti-MCM2 Antibody - Protocols

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

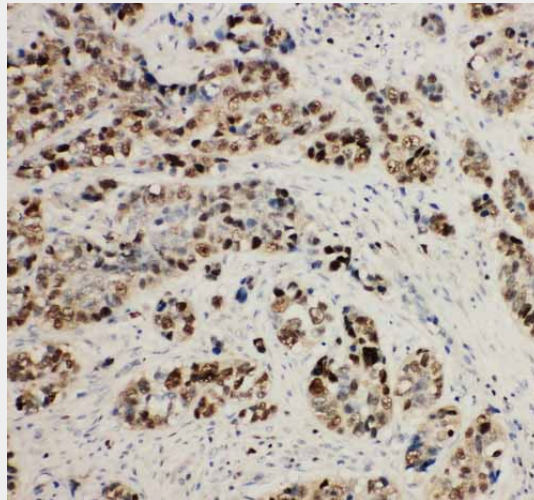
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-MCM2 Antibody - Images

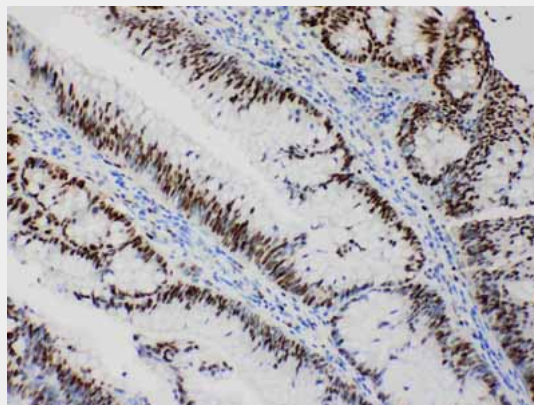




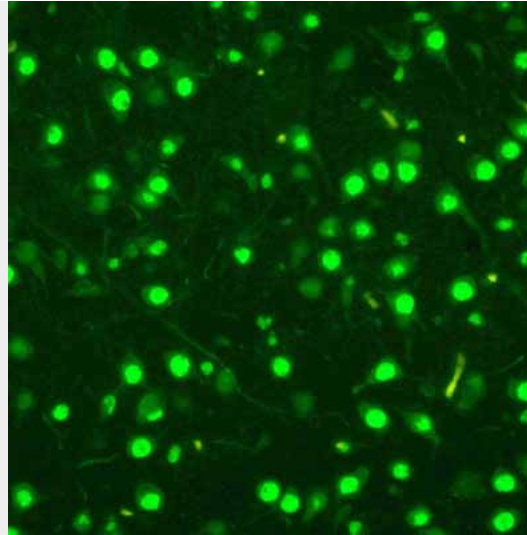
Anti-MCM2 antibody, ABO10965, Western blotting Lane 1: SW620 Cell Lysate Lane 2: PANC Cell Lysate Lane 3: JURKAT Cell Lysate Lane 4: HELA Cell Lysate



Anti-MCM2 antibody, ABO10965, IHC(P) IHC(P): Human Lung Cancer Tissue



Anti-MCM2 antibody, ABO10965, IHC(P) IHC(P): Human Intestinal Cancer Tissue



Anti-MCM2 antibody, ABO10965, ICCICC: A549 Cell

### **Anti-MCM2 Antibody - Background**

MCM2(MINICHROMOSOME MAINTENANCE, *S. CEREVISIAE*, HOMOLOG OF, 2),also known as MITOTIN, CDCL1 or BM28, is a human nuclear protein that plays an important role in 2 crucial steps of the cell cycle, namely, onset of DNA replication and cell division. And it is similar to members of the family of early S-phase proteins. The MCM2 gene is mapped to 3q21.3. 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. In the G<sub>0</sub> stage, the MCM2 and MCM5 proteins were much less abundant than the MCM7 and MCM3 proteins, which suggests that the MCM proteins are not present in stoichiometric amounts and that only a proportion of these molecules actively participate in cell cycle regulation as part of MCM complexes.