

**Anti-MCM7 Antibody**  
Catalog # ABO11101**Specification**

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**Anti-MCM7 Antibody - Product Information**

Application	IHC, WB, ICC
Primary Accession	<a href="#">P33993</a>
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for DNA replication licensing factor MCM7(MCM7) detection. Tested with WB, IHC-P, ICC in Human.

**Reconstitution**

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

**Anti-MCM7 Antibody - Additional Information**

**Gene ID** 4176

**Other Names**

DNA replication licensing factor MCM7, 3.6.4.12, CDC47 homolog, P1.1-MCM3, MCM7, CDC47, MCM2

**Calculated MW**

81308 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<br>

**Subcellular Localization**

Nucleus .

**Protein Name**

DNA replication licensing factor MCM7

**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 MCM7(699-719aa DEYEELNVWQVNASRTRITFV).

**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-MCM7 Antibody - Protein Information**

**Name** MCM7 ([HGNC:6950](#))

**Synonyms** CDC47, MCM2

**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:[25661590](http://www.uniprot.org/citations/25661590), 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), PubMed:[9305914](http://www.uniprot.org/citations/9305914)). 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 S-phase checkpoint activation upon UV-induced damage.

**Cellular Location**

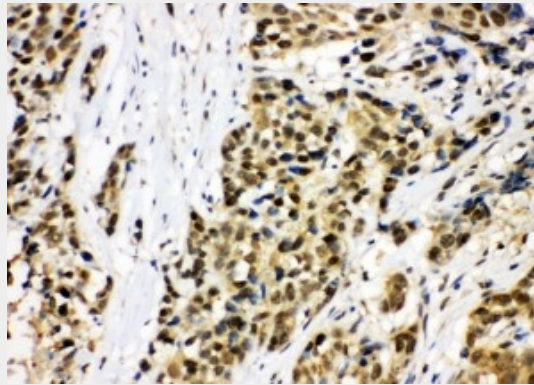
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

**Anti-MCM7 Antibody - Protocols**

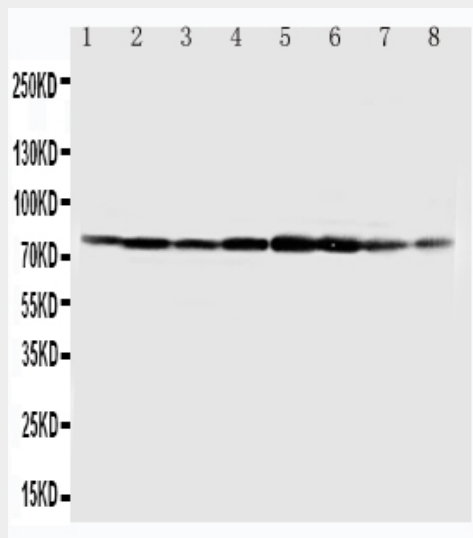
Provided below are standard protocols that you may find useful for product applications.

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

**Anti-MCM7 Antibody - Images**



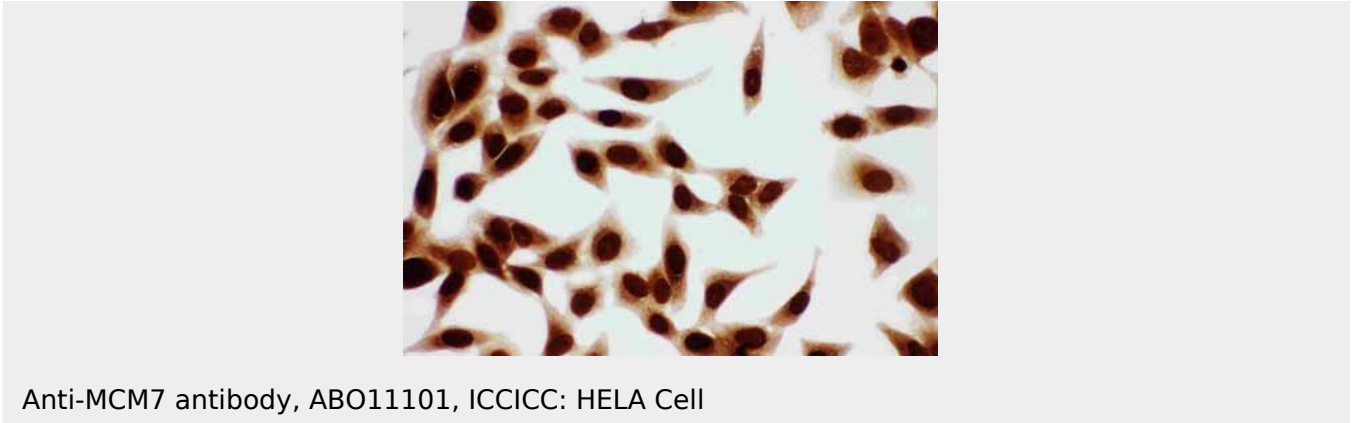
Anti-MCM7 antibody, ABO11101, IHC(P)IHC(P): Human Lung Cancer Tissue



Anti-MCM7 antibody, ABO11101, Western blotting  
Lane 1: COLO320 Cell Lysate  
Lane 2: SW620 Cell Lysate  
Lane 3: HELA Cell Lysate  
Lane 4: 22RVL Cell Lysate  
Lane 5: 293T Cell Lysate  
Lane 6: U937 Cell Lysate  
Lane 7: JURKAT Cell Lysate  
Lane 8: RAJI Cell Lysate



Anti-MCM7 antibody, ABO11101, ICCICC: MCF-7 Cell



Anti-MCM7 antibody, ABO11101, ICCICC: HELA Cell

### **Anti-MCM7 Antibody - Background**

MCM7 (Minichromosome Maintenance, s. *Cerevisiae*, homolog of, 7), also called CDC47, FORMERLY, is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The MCM7 gene is mapped on 7q22.1. MCM7 plays a pivotal role in the G1/S phase transition, orchestrating the correct assembly of replication forks on chromosomal DNA and ensuring that all the genome is replicated once and not more than once at each cell cycle. The MCM7 gene contains 15 exons. The miRNAs MIR106B, MIR93, and MIR25 are clustered in a 5-prime to 3-prime orientation within intron 13. Petrocca et al. (2008) found that MCM7 and the precursors of microRNAs (miRNAs) MIR106B, MIR93, and MIR25, all of which arise from intron 13 of the MCM7 gene, were overexpressed with almost perfect correlation in 5 of 10 human gastric tumors.