

**Anti-MCM7 Picoband Antibody**  
Catalog # ABO11952**Specification****Anti-MCM7 Picoband Antibody - Product Information**

Application	WB, IHC, ICC
Primary Accession	<a href="#">P33993</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
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;Mouse;Rat.

**Reconstitution**

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

**Anti-MCM7 Picoband 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, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<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 Na<sub>3</sub>.

**Immunogen**

E.coli-derived human MCM7 recombinant protein (Position: D526-V719). Human MCM7 shares 94% amino acid (aa) sequence identity with mouse MCM7.

**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 Picoband 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**

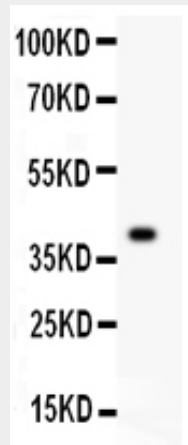
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

**Anti-MCM7 Picoband Antibody - Protocols**

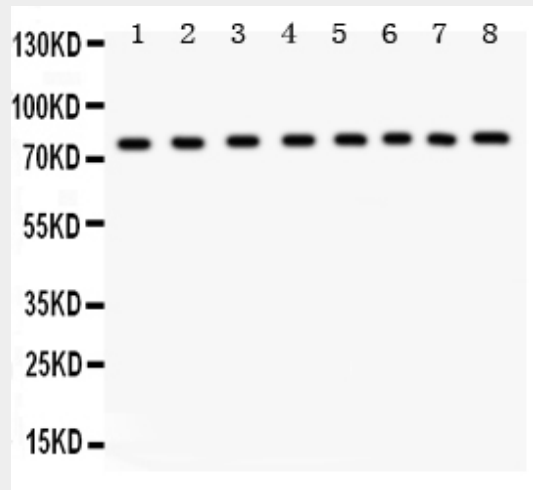
Provided below are standard protocols that you may find useful for product applications.

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

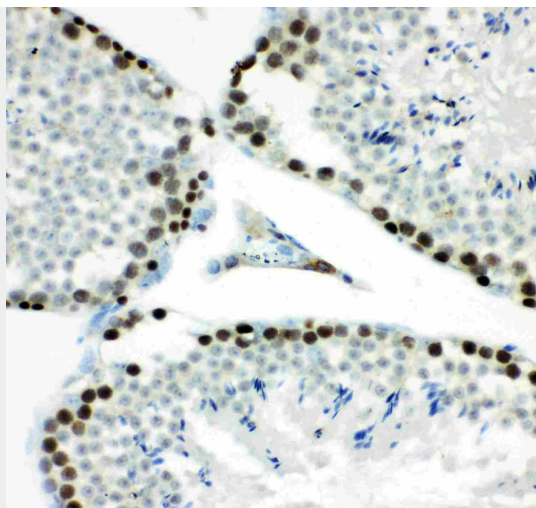
**Anti-MCM7 Picoband Antibody - Images**



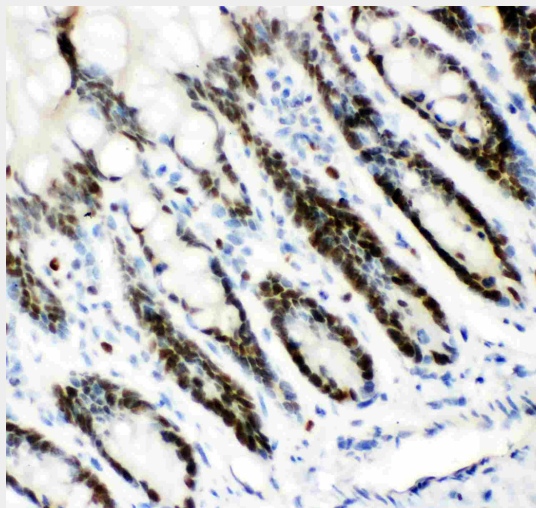
Anti- MCM7 Picoband antibody, ABO11952, Western blotting All lanes: Anti MCM7 (ABO11952) at 0.5ug/ml WB: Recombinant Human MCM7 Protein 0.5ng Predicted bind size: 39KD Observed bind size: 39KD



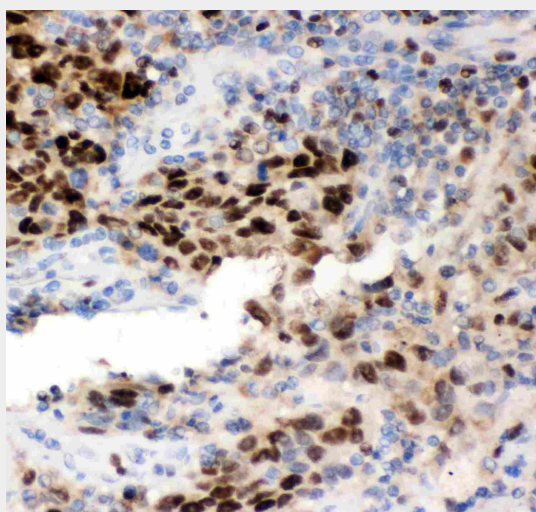
Anti- MCM7 Picoband antibody, ABO11952, Western blotting All lanes: Anti MCM7 (ABO11952) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Human Placenta Tissue Lysate at 50ug Lane 3: NIH3T3 Whole Cell Lysate at 40ug Lane 4: HELA Whole Cell Lysate at 40ug Lane 5: JURKAT Whole Cell Lysate at 40ug Lane 6: 22RV1 Whole Cell Lysate at 40ug Lane 7: COLO320 Whole Cell Lysate at 40ug Lane 8: PC-12 Whole Cell Lysate at 40ug Predicted bind size: 81KD Observed bind size: 81KD



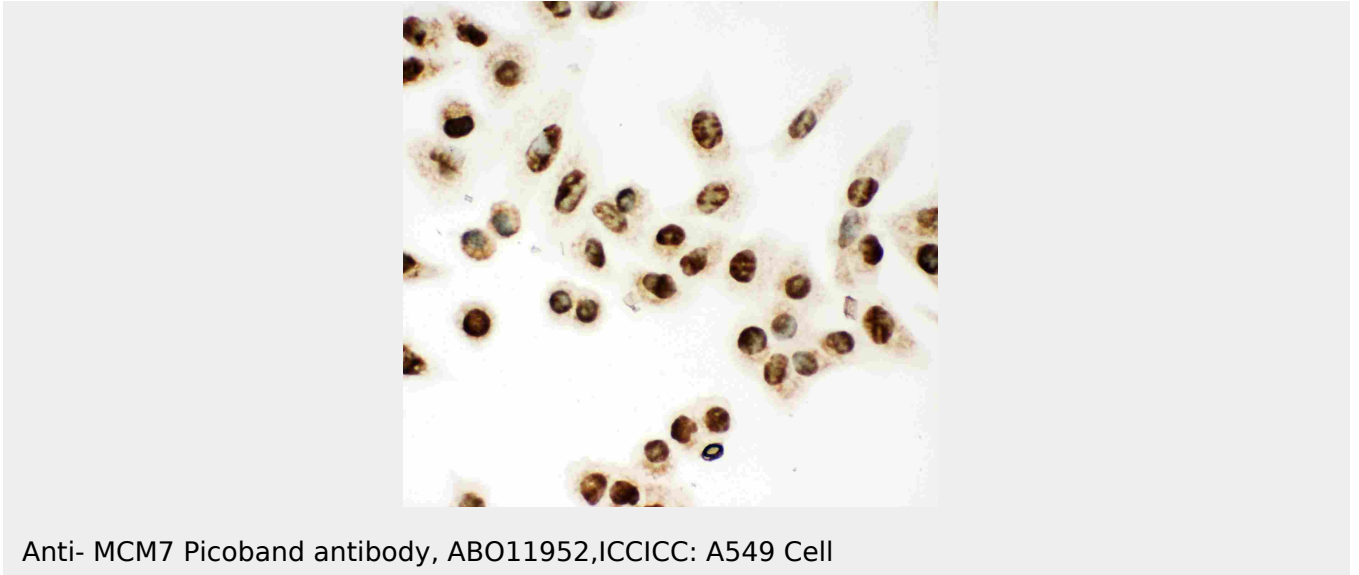
Anti- MCM7 Picoband antibody, ABO11952,IHC(P)IHC(P): Mouse Testis Tissue



Anti- MCM7 Picoband antibody, ABO11952,IHC(P)IHC(P): Rat Intestine Tissue



Anti- MCM7 Picoband antibody, ABO11952,IHC(P)IHC(P): Human Lung Cancer Tissue



### **Anti-MCM7 Picoband 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 to 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. It has been 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.