

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

Anti-MCM7 Picoband Antibody - Product Information

Application	WB, IHC, ICC
Primary Accession	P33993
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, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Nucleus .

Protein Name

DNA replication licensing factor MCM7

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

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:[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:[25661590](http://www.uniprot.org/citations/25661590), 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

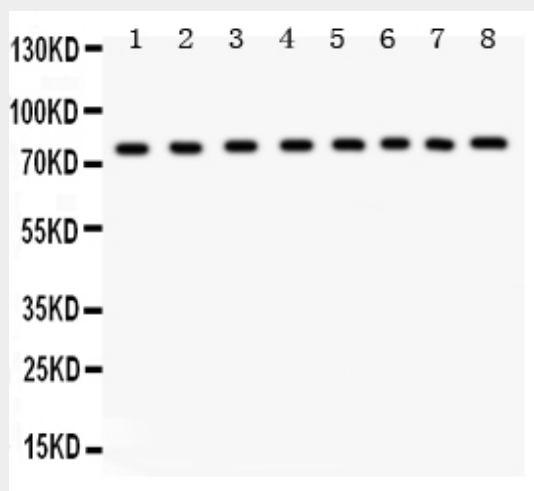
Provided below are standard protocols that you may find useful for product applications.

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

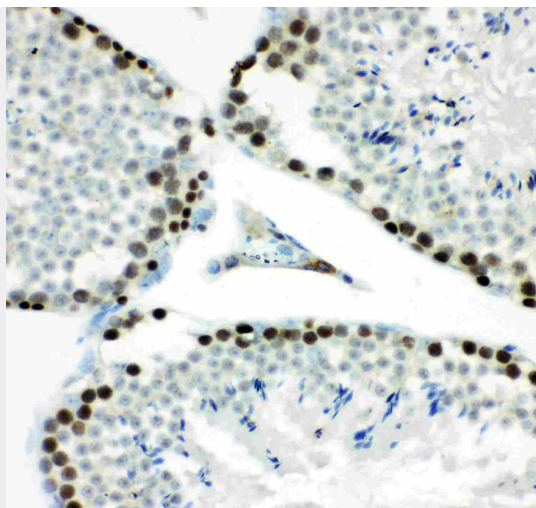
Anti-MCM7 Picoband Antibody - Images



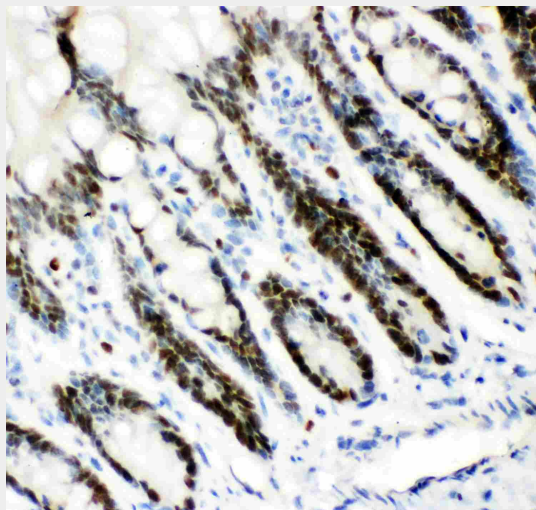
Anti- MCM7 Picoband antibody, ABO11952, Western blotting All lanes: Anti MCM7 (ABO11952) at 0.5ug/ml WB: Recombinant Human MCM7 Protein 0.5ng Predicted bind size: 39KD Observed bind size: 39KD



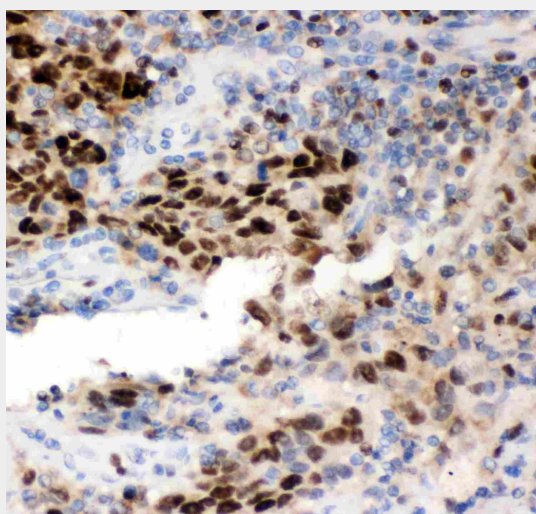
Anti- MCM7 Picoband antibody, ABO11952, Western blotting All lanes: Anti MCM7 (ABO11952) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Human Placenta Tissue Lysate at 50ug Lane 3: NIH3T3 Whole Cell Lysate at 40ug Lane 4: HELA Whole Cell Lysate at 40ug Lane 5: JURKAT Whole Cell Lysate at 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



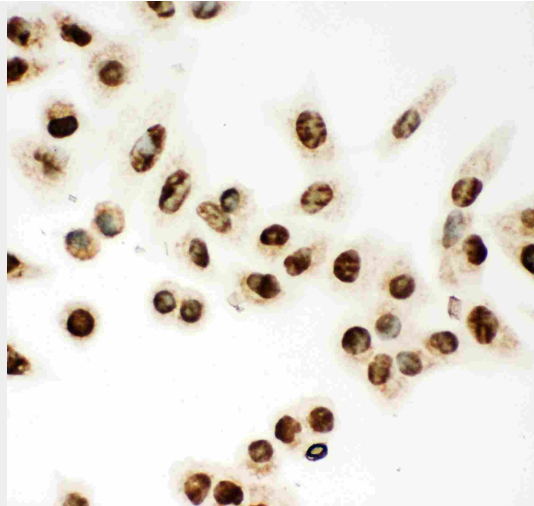
Anti- MCM7 Picoband antibody, ABO11952,IHC(P)IHC(P): Mouse Testis Tissue



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, ABO11952, ICCICC: A549 Cell

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.