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Anti-MCM7 Picoband Antibody

Catalog # ABO11952

Product Information

Application	WB, IHC-P, 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.

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
Application Details	Immunocytochemistry , 0.5-1 □g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	Nucleus .
Source	Eukaryota
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 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.

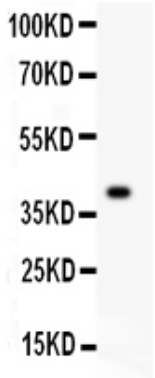
Protein Information

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, PubMed:32453425, PubMed:34694004, PubMed:34700328, PubMed:35585232, PubMed: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). 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.

Background

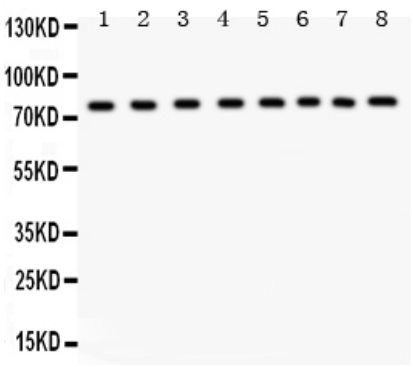
MCM7(Minichromosome Maintenance, s. Cerevisiae, homolog of, 7), also called CDC47, FORMERLY, is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are essential for the initiation of eukaryotic genome replication. The MCM7 gene is mapped to 7q22.1. MCM7 plays a pivotal role in 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.

Images

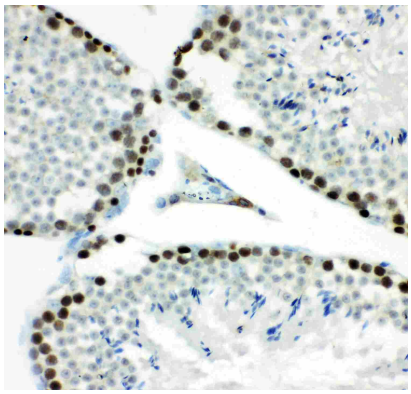


Anti- MCM7 Picoband antibody, ABO11952, Western blottingAll lanes: Anti MCM7 (ABO11952) at 0.5ug/mlWB: Recombinant Human MCM7 Protein 0.5ngPredicted bind size: 39KDObserved bind size: 39KD

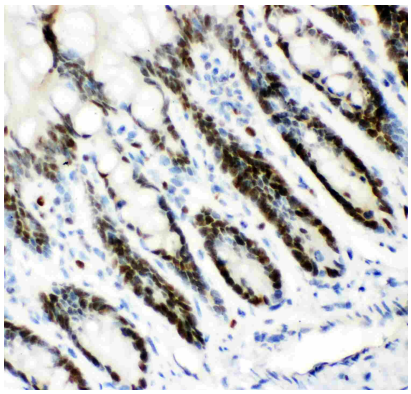
Anti- MCM7 Picoband antibody, ABO11952, Western blottingAll lanes: Anti MCM7 (ABO11952) at 0.5ug/mlLane



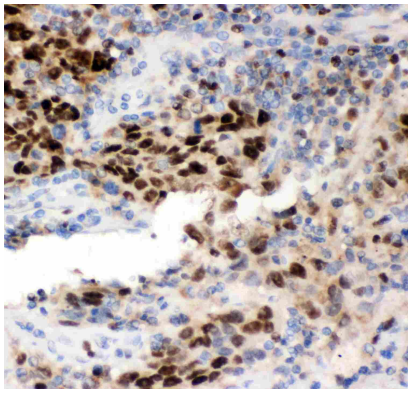
1: Rat Brain Tissue Lysate at 50ugLane 2: Human Placenta Tissue Lysate at 50ugLane 3: NIH3T3 Whole Cell Lysate at 40ugLane 4: HELA Whole Cell Lysate at 40ugLane 5: JURKAT Whole Cell Lysate at 40ugLane 6: 22RV1 Whole Cell Lysate at 40ugLane 7: COLO320 Whole Cell Lysate at 40ugLane 8: PC-12 Whole Cell Lysate at 40ugPredicted bind size: 81KDObserved bind size: 81KD



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

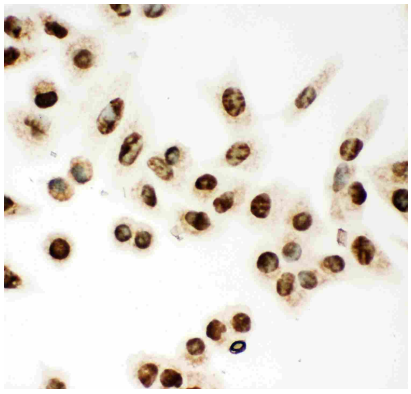


Anti- MCM7 Picoband antibody, ABO11952,IHC(P)IHC(P): Rat Intestine Tissue



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

Anti- MCM7 Picoband antibody, ABO11952,ICCICC: A549 Cell



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