10320 Camino Santa Fe, Suite G
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Anti-MCM7 Antibody
Catalog # ABO11101

Specification

Anti-MCM7 Antibody - Product Information

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

Subcellular Localization
Nucleus .

Protein Name
DNA replication licensing factor MCM7

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

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 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-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, 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.

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 Cytomety
- Cell Culture

Anti-MCM7 Antibody - Images

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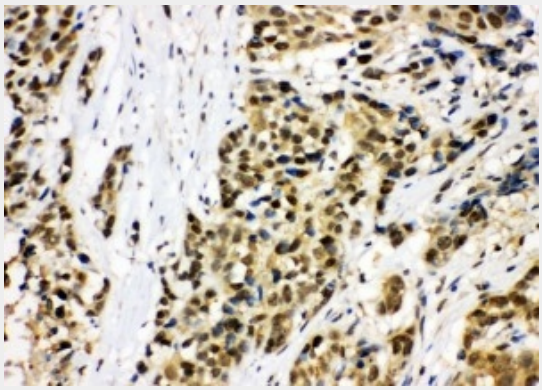
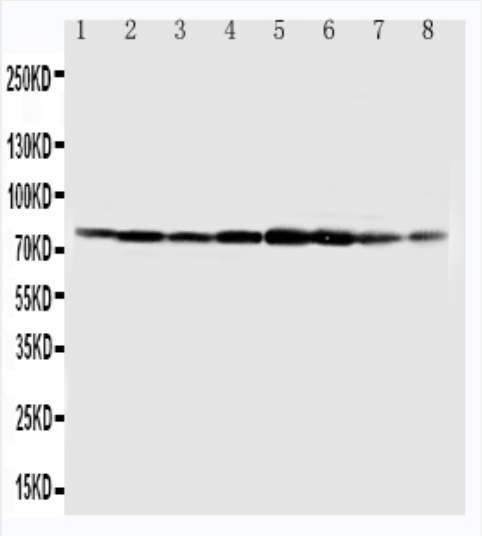
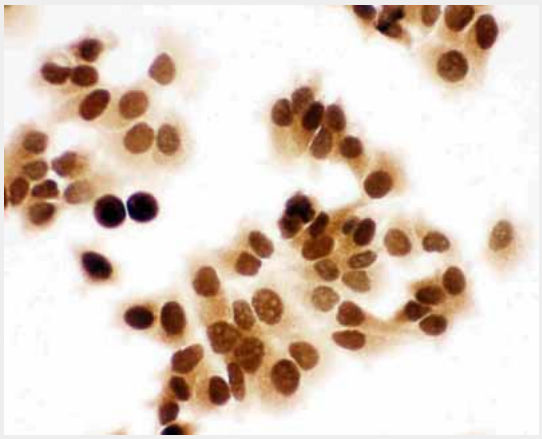


Anti-MCM7 antibody, ABO11101, IHC(P)IHC(P): Human Lung Cancer Tissue



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



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

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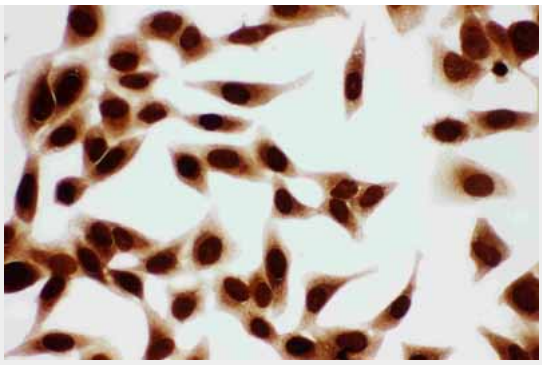

Anti-MCM7 antibody, ABO11101, ICCICC: HELA Cell

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.