

Anti-MCM7 / CDC47 Antibody
Mouse Monoclonal Antibody
Catalog # AH13395**Specification**

Anti-MCM7 / CDC47 Antibody - Product Information

Application	,1,14,3,4,
Primary Accession	P33993
Other Accession	438720
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	81308

Anti-MCM7 / CDC47 Antibody - Additional Information**Gene ID** 4176**Other Names**

CDC47; DNA replication licensing factor MCM7; MCM7 mini chromosome maintenance deficient 7; Minichromosome Maintenance 7; Mini chromosome maintenance protein 7; P1.1-MCM3; P1CDC47; P85MCM; PNAS146

Format

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage

Store at 2 to 8°C. Antibody is stable for 24 months.

Precautions

Anti-MCM7 / CDC47 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-MCM7 / CDC47 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:32453425).

[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

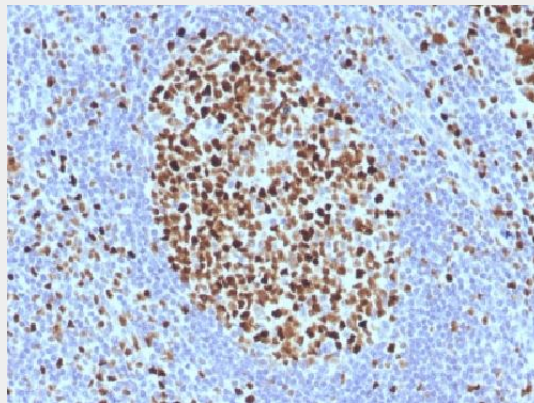
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

Anti-MCM7 / CDC47 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 / CDC47 Antibody - Images



Formalin-fixed, paraffin-embedded human Tonsil stained with MCM7 Monoclonal Antibody (SPM379).

Anti-MCM7 / CDC47 Antibody - Background

MCM7 is one of the highly conserved mini-chromosome maintenance proteins (MCM) that is essential for the initiation of eukaryotic genome replication. The hexameric protein complex formed by the MCM proteins is a key component of the pre-replication complex and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. The MCM complex consisting of this protein and MCM2, 4 and 6 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. Cyclin D1-dependent kinase, CDK4, is found to

associate with this protein, and may regulate the binding of this protein with the tumor suppressor protein RB1/RB.