

**MCM7 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP16322a**

**Specification**

---

**MCM7 Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P33993</a>
Other Accession	<a href="#">NP_877577.1</a> , <a href="#">NP_005907.3</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	81308
Antigen Region	290-318

**MCM7 Antibody (N-term) - Additional Information**

**Gene ID** 4176

**Other Names**

DNA replication licensing factor MCM7, CDC47 homolog, P11-MCM3, MCM7, CDC47, MCM2

**Target/Specificity**

This MCM7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 290-318 amino acids from the N-terminal region of human MCM7.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MCM7 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MCM7 Antibody (N-term) - 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](#), PubMed:[34694004](#), PubMed:[34700328](#), PubMed:[35585232](#), PubMed:[25661590](#), 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

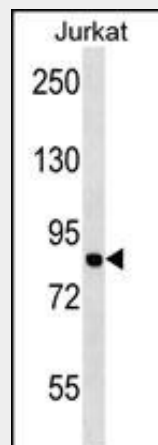
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

#### MCM7 Antibody (N-term) - 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](#)

#### MCM7 Antibody (N-term) - Images



MCM7 Antibody (N-term) (Cat. #AP16322a) western blot analysis in Jurkat cell line lysates (35ug/lane). This demonstrates the MCM7 antibody detected the MCM7 protein (arrow).

#### MCM7 Antibody (N-term) - Background

The protein encoded by this gene is one of the highly conserved mini-chromosome maintenance proteins (MCM) that are 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 (pre\_RC) 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 tumorsuppressor protein RB1/RB. Alternatively spliced transcript variants encoding distinct isoforms have been reported.

#### **MCM7 Antibody (N-term) - References**

Lau, K.M., et al. Oncogene 29(40):5475-5489(2010)  
Kim, D.W., et al. Mol. Biochem. Parasitol. 173(1):10-16(2010)  
Olson, J.E., et al. Breast Cancer Res. Treat. (2010) In press :  
Rojiani, M.V., et al. Appl. Immunohistochem. Mol. Morphol. 18(3):278-282(2010)  
Poliseno, L., et al. Sci Signal 3 (117), RA29 (2010) :

#### **MCM7 Antibody (N-term) - Citations**

- [Jumonji Domain Containing 5 \(JMJD5\) Associates with Spindle Microtubules and Is Required for Proper Mitosis.](#)