

MCM7 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP16322a**Specification**

MCM7 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P33993](#)**MCM7 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 4176**Other Names**

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

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MCM7 Antibody (N-term) Blocking Peptide - 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) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

MCM7 Antibody (N-term) Blocking Peptide - Images**MCM7 Antibody (N-term) Blocking Peptide - 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 tumor suppressor protein RB1/RB. Alternatively spliced transcript variants encoding distinct isoforms have been reported.

MCM7 Antibody (N-term) Blocking Peptide - 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) :