

**MCM3 Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP14026a****Specification**

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**MCM3 Antibody (N-term) Blocking peptide - Product Information**Primary Accession [P25205](#)**MCM3 Antibody (N-term) Blocking peptide - Additional Information**

Gene ID 4172

**Other Names**

DNA replication licensing factor MCM3, DNA polymerase alpha holoenzyme-associated protein P1, P1-MCM3, RLF subunit beta, p102, MCM3

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP14026a was selected from the N-term region of MCM3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**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.

**MCM3 Antibody (N-term) Blocking peptide - Protein Information**Name MCM3 ([HGNC:6945](#))**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:<a href="http://www.uniprot.org/citations/32453425" target="\_blank">32453425</a>, PubMed:<a href="http://www.uniprot.org/citations/34694004" target="\_blank">34694004</a>, PubMed:<a href="http://www.uniprot.org/citations/34700328" target="\_blank">34700328</a>, PubMed:<a href="http://www.uniprot.org/citations/35585232" target="\_blank">35585232</a>). 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:<a

href="http://www.uniprot.org/citations/32453425" target="\_blank">32453425</a>). Required for the entry in S phase and for cell division (Probable).

**Cellular Location**

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

**MCM3 Antibody (N-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**MCM3 Antibody (N-term) Blocking peptide - Images****MCM3 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 involved in the initiation of eukaryotic genome replication. The hexameric protein complex formed by 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. This protein is a subunit of the protein complex that consists of MCM2-7. It has been shown to interact directly with MCM5/CDC46. This protein also interacts with, and thus is acetylated by MCM3AP, a chromatin-associated acetyltransferase. The acetylation of this protein inhibits the initiation of DNA replication and cell cycle progression. [provided by RefSeq].

**MCM3 Antibody (N-term) Blocking peptide - References**

Lau, K.M., et al. Oncogene 29(40):5475-5489(2010) Olson, J.E., et al. Breast Cancer Res. Treat. (2010) In press :Lee, Y.S., et al. Exp. Mol. Pathol. 88(1):138-142(2010) Song, Y.J., et al. Acta Virol. 54(2):125-130(2010) Saade, E., et al. Proteomics 9(21):4934-4943(2009)