

Anti-MCM4 Antibody
Catalog # ABO10967**Specification**

Anti-MCM4 Antibody - Product Information

Application	WB
Primary Accession	P33991
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for DNA replication licensing factor MCM4(MCM4) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MCM4 Antibody - Additional Information

Gene ID 4173

Other Names

DNA replication licensing factor MCM4, 3.6.4.12, CDC21 homolog, P1-CDC21, MCM4, CDC21

Calculated MW

96558 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Nucleus .

Protein Name

DNA replication licensing factor MCM4

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 MCM4(815-829aa TPALKYQQLFEDIRG), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, 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-MCM4 Antibody - Protein Information

Name MCM4 ([HGNC:6947](#))

Synonyms CDC21

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:[16899510](http://www.uniprot.org/citations/16899510), PubMed:[25661590](http://www.uniprot.org/citations/25661590), PubMed:[32453425](http://www.uniprot.org/citations/32453425), PubMed:[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:[16899510](http://www.uniprot.org/citations/16899510), PubMed:[25661590](http://www.uniprot.org/citations/25661590), PubMed:[32453425](http://www.uniprot.org/citations/32453425), PubMed:[9305914](http://www.uniprot.org/citations/9305914)).

Cellular Location

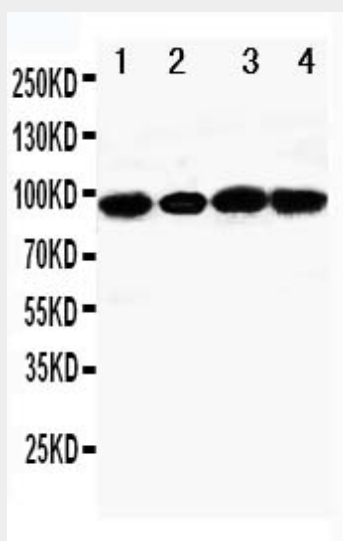
Nucleus. Chromosome. Note=Associated with chromatin before the formation of nuclei and detaches from it as DNA replication progresses.

Anti-MCM4 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-MCM4 Antibody - Images



Anti-MCM4 antibody, ABO10967, Western blotting
Lane 1: PANC Cell Lysate
Lane 2: HELA Cell Lysate
Lane 3: U2OS Cell Lysate
Lane 4: JURKAT Cell Lysate

Anti-MCM4 Antibody - Background

MCM4(MINICHROMOSOME MAINTENANCE, *S. CEREVISIAE*, HOMOLOG OF, 4), also called CDC21, *S. POMBE*, HOMOLOG OF, is a protein that in humans is encoded by the MCM4 gene. MCM4 is one of the highly conserved mini-chromosome maintenance proteins(MCM) that are essential for the initiation of eukaryotic genome replication. The MCM4 gene is mapped to 8q11.21. The 864-amino acid MCM4 protein has an observed molecular mass of 97 kD by SDS-PAGE, which is similar to its calculated molecular mass of 96.6 kD. Western blot analysis with and without phosphatase treatment suggested that MCM4 is highly phosphorylated in mitotic cells. In the absence of DDK, CDK phosphorylation at the distal part of the Mcm4 NSD becomes crucial. MCM4 encodes a subunit of the MCM2-7 complex(also known as MCM2-MCM7), the replication licensing factor and presumptive replicative helicase.