

# Rabbit Anti-MCM7 antibody

# SL10319R

Product Name:	MCM7
Chinese Name:	微小染色体维持缺陷蛋白7抗体
Alias:	CDABP0042; CDC 47; CDC47; CDC47 homolog; DNA replication licensing factor MCM7; Homolog of S. cerevisiae Cdc47; MCM 2; MCM 7; MCM2; Mcm7; MCM7 minichromosome maintenance deficient 7; MCM7_HUMAN; Minichromosome Maintainence 7; Minichromosome maintenance complex component 7; Minichromosome maintenance deficient 7; Minichromosome maintenance protein 7; P1.1 MCM3; P1.1-MCM3; P1CDC47; P85MCM; PNAS 146; PNAS146.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	81kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	lmg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MCM7:1-100/719
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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. [provided by RefSeq, Jul 2008].

### Function:

Acts as component of the MCM2-7 complex (MCM complex) which is the putative replicative helicase essential for 'once per cell cycle' DNA replication initiation and elongation in eukaryotic cells. 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. Required for S-phase checkpoint activation upon UV-induced damage.

### **Subunit:**

Component of the MCM2-7 complex. The complex forms a toroidal hexameric ring with the proposed subunit order MCM2-MCM6-MCM4-MCM7-MCM3-MCM5 (By similarity). Interacts with the ATR-ATRIP complex and with RAD17. Interacts with TIPIN. Interacts with MCMBP.

## **Subcellular Location:**

Nucleus.

## Post-translational modifications:

Phosphorylated upon DNA damage, probably by ATM or ATR.

## Similarity:

Belongs to the MCM family.

Contains 1 MCM domain.

## **SWISS:**

P33993

## Gene ID:

4176

## Database links:

Entrez Gene: 4176Human

Entrez Gene: 17220 Mouse

Entrez Gene: 288532Rat

Omim: 600592Human

SwissProt: P33993Human

SwissProt: Q61881Mouse

Unigene: 438720Human

Unigene: 378965Mouse

Unigene: 113Rat

## **Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.