

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 Maintenance 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.

Research Area

Tumour Cell biology Apoptosis transcriptional regulatory factor

Immunogen Species

Rabbit

Clonality

Polyclonal

React Species

(predicted: Human, Mouse, Rat,)

Applications

IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
(Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight

81kDa

Cellular localization

The nucleus

Form

Liquid

Concentration

1mg/ml

immunogen

KLH conjugated synthetic peptide derived from human MCM7: 1-100/719

Lsotype

IgG

Purification

affinity purified by Protein A

Buffer Solution

1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

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

PubMed

[PubMed](#)

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].

**Product
Detail**

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: 4176](#) Human

[Entrez Gene: 17220](#) Mouse

[Entrez Gene: 288532](#) Rat

[Omim: 600592](#) Human

[SwissProt: P33993](#) Human

[SwissProt: Q61881](#) Mouse

[Unigene: 438720](#) Human

[Unigene: 378965](#) Mouse

[Unigene: 113](#) Rat