

Recombinant Human MCM7, His-tagged

Cat. No. MCM7-5028H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human MCM7 protein, fused to His-tag at N-terminus, was expressed in E.coli.
Species	Human
Source	E.coli
Description	MCM7 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.
Form	Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.4M UREA, 10% glycerol
Molecular Mass	48.6kDa (437aa)
AA Sequence	MGSSHHHHHH SSGLVPRGSH MGSMVVATYT CDQCGAETYQ PIQSPTFMPL IMCPSQECQT NRSGGRLLYLQ TRGSRFIKQ EMKMQEHSDQ VPVGNIPRSI TVLVEGENTR IAQPGDHVSV TGIFLPILRT GFRQVVQGLL SETYLEAHRI VKMNKSEDDE SGAGELTREE LRQIAEEDFY EKLAASIAPE IYGHEDVKKA

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LLLLLVGGVD QSPRGMKIRG NINICLMGDP GVAKSQLLSY IDRLAPRSQY
 TTGRGSSGVG LTA AVL RDSV SGELTLEGGA LVLADQGVCC IDEFDKMAEA
 DRTAIHEVME QQTISI AKAG ILTTLNARCS ILAAANPAYG RYNPRRSLEQ
 NIQLPAALLS RFDLLWLIQD RPDRDNDLRL AQHITYVHQH SRQPPSQFEP
 LDMKLMRRYI AMCREKQPMV PESLADYITA AYVEMRR

Purity >85% by SDS - PAGE

Applications SDS-PAGE

Storage Can be stored at +4centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20centigrade or -70centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [MCM7 minichromosome maintenance complex component 7 \[Homo sapiens \]](#)

Official Symbol MCM7

Synonyms MCM7; minichromosome maintenance complex component 7; MCM2, MCM7 minichromosome maintenance deficient 7 (S. cerevisiae) , minichromosome maintenance deficient (S. cerevisiae) 7; DNA replication licensing factor MCM7; CDC47; CDC47 homolog; homolog of S. cerevisiae Cdc47; minichromosome maintenance deficient 7; MCM2; P85MCM; P1CDC47; PNAS146; P1.1-MCM3;

Gene ID [4176](#)

mRNA Refseq [NM_005916](#)

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Protein Refseq	NP_005907
MIM	600592
UniProt ID	P33993
Chromosome Location	7q21.3-q22.1
Pathway	Activation of ATR in response to replication stress, organism-specific biosystem; Activation of the pre-replicative complex, organism-specific biosystem; Assembly of the pre-replicative complex, organism-specific biosystem; Cell Cycle, organism-specific biosystem; Cell Cycle Checkpoints, organism-specific biosystem; Cell Cycle, Mitotic, organism-specific biosystem; Cell cycle, organism-specific biosystem;
Function	ATP binding; contributes_to ATP-dependent DNA helicase activity; contributes_to DNA binding; hydrolase activity; nucleotide binding; protein binding; single-stranded DNA binding;