

Recombinant Human MCM4, His-tagged

Cat. No. MCM4-28040TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 545-863 of Human MCM4 with N terminal His tag; 319 amino acids, 37kDa.
Species	Human
Source	E.coli
ProteinLength	545-863 a.a.
Description	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 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, 6 and 7 proteins possesses DNA helicase activity, and may act as a DNA unwinding enzyme. The phosphorylation of this protein by CDC2 kinase reduces the DNA helicase activity and chromatin binding of the MCM complex. This gene is mapped to a region on the chromosome 8 head-to-head next to the PRKDC/DNA-PK, a DNA-activated protein kinase involved in the repair of DNA double-strand breaks. Alternatively spliced transcript variants encoding the same protein have been reported.
Conjugation	HIS
Form	Lyophilised:Reconstitute with 87

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	µl aqua dest.
Storage buffer	Preservative: None Constituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5
Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	AYVMKDPETRQLVLQTGALVLSDNIGCCIDEFDKMNESTR SVLHEVMEQQTLSIAKA GIICQLNARTSVLAAANPIES QWNPCKTTIENIQLPHTLLSRFDLIFLLLDLPQDEAYDR RLAHHLVALYYQSEEQAEELLDMAVLKDYIAYAHSTIMP RLSEEASQALIEAYVDM RKIGSSRGMVSAYPRQLESLI RLAEAHAKVRLSNKVEAIDVEEAKRLHREALKQSAT DPRT GIVDISILTTGMSATSRKRKEELAEALKKLILSKGKTP ALKYQQLFEDIRGQSDI AITKDMFEEALRALADDDFLT VTGKTVRLL
Sequence Similarities	Belongs to the MCM family. Contains 1 MCM domain.

GENE INFORMATION

Gene Name	MCM4 minichromosome maintenance complex component 4 [Homo sapiens]
Official Symbol	MCM4
Synonyms	MCM4; minichromosome maintenance complex component 4; CDC21, MCM4 minichromosome maintenance deficient 4 (S. cerevisiae); DNA replication licensing factor MCM4; CDC54; hCdc21; MGC33310; P1 Cdc21;
Gene ID	4173
mRNA Refseq	NM_005914

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Protein Refseq	NP_005905
MIM	602638
Uniprot ID	P33991
Chromosome Location	8q12-q13
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; C-MYB transcription factor network, organism-specific biosystem; Cell Cycle Checkpoints, organism-specific biosystem;
Function	ATP binding; contributes_to ATP-dependent DNA helicase activity; DNA binding; helicase activity; hydrolase activity;