

## **Product datasheet for TP312292L**

#### OriGene Technologies, Inc.

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## MCM4 (NM\_005914) Human Recombinant Protein

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human minichromosome maintenance complex component 4

(MCM4), transcript variant 1, 1 mg

Species: Human
Expression Host: HEK293T

**Expression cDNA Clone** >RC212292 representing NM\_005914

or AA Sequence: Red=Cloning site Green=Tags(s)

MSSPASTPSRRGSRRGRATPAQTPRSEDARSSPSQRRRGEDSTSTGELQPMPTSPGVDLQSPAAQDVLFS SPPQMHSSAIPLDFDVSSPLTYGTPSSRVEGTPRSGVRGTPVRQRPDLGSAQKGLQVDLQSDGAAAEDIV ASEQSLGQKLVIWGTDVNVAACKENFQRFLQRFIDPLAKEEENVGIDITEPLYMQRLGEINVIGEPFLNV NCEHIKSFDKNLYRQLISYPQEVIPTFDMAVNEIFFDRYPDSILEHQIQVRPFNALKTKNMRNLNPEDID QLITISGMVIRTSQLIPEMQEAFFQCQVCAHTTRVEMDRGRIAEPSVCGRCHTTHSMALIHNRSLFSDKQ MIKLQESPEDMPAGQTPHTVILFAHNDLVDKVQPGDRVNVTGIYRAVPIRVNPRVSNVKSVYKTHIDVIH YRKTDAKRLHGLDEEAEQKLFSEKRVELLKELSRKPDIYERLASALAPSIYEHEDIKKGILLQLFGGTRK DFSHTGRGKFRAEINILLCGDPGTSKSQLLQYVYNLVPRGQYTSGKGSSAVGLTAYVMKDPETRQLVLQT GALVLSDNGICCIDEFDKMNESTRSVLHEVMEQQTLSIAKAGIICQLNARTSVLAAANPIESQWNPKKTT IENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHHLVALYYQSEEQAEEELLDMAVLKDYIAYAHSTIMP RLSEEASQALIEAYVDMRKIGSSRGMVSAYPRQLESLIRLAEAHAKVRLSNKVEAIDVEEAKRLHREALK QSATDPRTGIVDISILTTGMSATSRKRKEELAEALKKLILSKGKTPALKYQQLFEDIRGQSDIAITKDMF

**EEALRALADDDFLTVTGKTVRLL** 

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV** 

Tag: C-Myc/DDK
Predicted MW: 96.4 kDa

Concentration:  $>0.05 \mu g/\mu L$  as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by

conventional chromatography steps.



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**Note:** For testing in cell culture applications, please filter before use. Note that you may experience

some loss of protein during the filtration process.

Storage: Store at -80°C.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and

handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** NP 005905

**Locus ID:** 4173

**UniProt ID:** <u>P33991</u>, <u>B4DLA6</u>

RefSeq Size: 3533 Cytogenetics: 8q11.21 RefSeq ORF: 2589

Synonyms: CDC21; CDC54; hCdc21; IMD54; NKCD; NKGCD; P1-CDC21

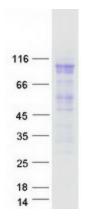
**Summary:** The protein encoded by this gene is one of the highly conserved mini-chromosome

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. [provided by RefSeq, Jul 2008]

**Protein Families:** Stem cell - Pluripotency, Transcription Factors

**Protein Pathways:** Cell cycle, DNA replication

# **Product images:**



Coomassie blue staining of purified MCM4 protein (Cat# [TP312292]). The protein was produced from HEK293T cells transfected with MCM4 cDNA clone (Cat# [RC212292]) using MegaTran 2.0 (Cat# [TT210002]).