

## Recombinant Human MCM7

Cat. No. MCM7-28043TH Lot. No. (See product label)

### SPECIFICATION

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Recombinant full length Human MCM7 with N terminal proprietary tag; Predicted MWt 68.90 kDa.  |
| <b>Species</b>          | Human   |
| <b>Source</b>           | Wheat Germ  |
| <b>ProteinLength</b>    | 389 amino acids   |
| <b>Description</b>      | <p>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.</p> |
| <b>Molecular Weight</b> | 68.900kDa inclusive of tags   |
| <b>Form</b>             | Liquid  |
| <b>Purity</b>           | Proprietary Purification  |

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|---------------------------------|--|
| <b>Storage buffer</b>           | pH: 8.00<br>Constituents: 0.3% Glutathione, 0.79% Tris HCl   |
| <b>Storage</b>                  | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.  |
| <b>Sequences of amino acids</b> | MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRL AHREQVALYVDLDDV<br>AEDDPELVDSICENARRYAKLFADA VQELLPQYKEREVVNKDVLVDVYIEHRLMMEQ<br>RSRDPGMVR SPQNNQYPAELMRRFELYFQGSSSKPRVIREVRADSVGKL VTVRGI<br>VTRVSEVKPKMVVATYTCDQCGAETYQPIQSPTF MPLIMCPSQECQTNRSGGRLYL<br>QTRGSRFIKFQEMKMQEHSQVVPVGNIPRSITLVEGENTRIAQPGDHVSVTGIFLPI<br>LRTGFRQVVQGLLSETYLEAHRIVKMNKSEDDESGAGELT REELRQIADVIFATVRE<br>LVSGGRSVRFSEAEQRCVSRGFT PAQFQAALDEYEELNVWQVNASRTRITFV |
| <b>Sequence Similarities</b>    | Belongs to the MCM family. Contains 1 MCM domain.  |

## GENE INFORMATION

|                        |   |
|------------------------|---|
| <b>Gene Name</b>       | <a href="#">MCM7 minichromosome maintenance complex component 7 [ Homo sapiens ]</a>  |
| <b>Official Symbol</b> | <a href="#">MCM7</a>  |
| <b>Synonyms</b>        | MCM7; minichromosome maintenance complex component 7; MCM2, MCM7 minichromosome maintenance deficient 7 ( <i>S. cerevisiae</i> ) , minichromosome maintenance deficient ( <i>S. cerevisiae</i> ) 7; DNA replication licensing factor MCM7; CDC47; |
| <b>Gene ID</b>         | <a href="#">4176</a>  |
| <b>mRNA Refseq</b>     | <a href="#">NM_005916</a>   |

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|                            |  |
|----------------------------|--|
| <b>Protein Refseq</b>      | NP_005907  |
| <b>MIM</b>                 | 600592   |
| <b>Uniprot ID</b>          | P33993   |
| <b>Chromosome Location</b> | 7q21.3-q22.1   |
| <b>Pathway</b>             | 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 Checkpoints, organism-specific biosystem; Cell Cycle, Mitotic, organism-specific biosystem; |
| <b>Function</b>            | ATP binding; contributes_to ATP-dependent DNA helicase activity; contributes_to DNA binding; hydrolase activity; nucleotide binding;   |

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