MCM8 cDNA Clone – Minichromosome Maintenance Complex Component 8 (Human)

PRODUCT OVERVIEW

Product Name	MCM8, cDNA Clone
Full Product Name	MCM8 cDNA Clone
Product Gene Name	MCM8 cdna clone
Sequence	atggcttttc tttgtgctgc atgtggagaa attcagagct ttcctcttcc agatggaaaa tacagtcttc ccacaaagtg tcctgtgcct gtgtgtcgag gcaggtcatt tactgctctc cgcagctctc ctctcacagt tacgatggac tggcagtcaa tcaaaatcca ggaattgatg tctgatgatc agagagaagc aggtcggatt ccacgaacaa tagaatgtga gcttgttcat gatcttgtgg atagctgtgt cccgggagac acagtgacta ttactggaat tgtcaaagtc tcaaatgcgg aagaaggttc tcgaaataag aatgacaagt gtatgttcct tttgtatatt gaagcaaatt ctattagtaa tagcaaagga cagaaaacaa agagttctga ggatgggtgt aagcatggaa tgttgatgga gttctcactt aaagaccttt atgccatcca agagattcaa gctgaagaaa acctgtttaa actcattgtc aactcgcttt gccctgtcat ttttggtcat gaacttgtta aagcaggttt ggcattagca ctctttggag gaagccagaa atacgcagat gacaaaaaca gaattccaat tcggggagac ccccacatcc ttgttgttgg agatccaggc ctaggaaaaa gtcaaatgct acaggcagcg tgcaatgttg ccccacgtgg cgtgtatgtt tgtggtaaca ccacgaccac ctctggtctg acggtaactc tttcaaaaga tagttcctct ggagattttg ctttggaagc tggtgccctg gtacttggtg atcaaggtat ttgtggaatc gatgaatttg ataagatggg gaatcaacat caagccttgt tggaagccat ggagcagcaa agtattagtc ttgctaaggc tggtgtggtt tgtagccttc ctgcaagaac ttccattatt gctgctgcaa atccagttgg aggacattac aataaagcca aaacagtttc tgagaattta aaaatgggga gtgcactact atccagattt gatttggtct ttatcctgtt agatactcca aatgagcatc atgatcactt actctctgaa catgtgattg caataagagc tggaaagcag agaaccatta gcagtgccac agtagctcgt atgaatagtc aagattcaaa tacttccgta cttgaagtag tttctgagaa gccattatca gaaagactaa aggtggttcc tggagaaaca atagatccca ttccccacca gctattgaga aagtacattg gctatgctcg gcagtatgtg tacccaaggc tatccacaga agctgctcga gttcttcaag atttttacct tgagctccgg aaacagagcc agaggttaaa tagctcacca atcactacca ggcagctgga atctttgatt cgtctgacag aggcacgagc aaggttggaa ttgagagagg aagcaaccaa agaagacgct gaggatatag tggaaattat gaaatatagc atgctaggaa cttactctga tgaatttggg aacctagatt ttgagcgatc ccagcatggt tctggaatga gcaacaggtc aacagcgaaa agatttattt ctgctctcaa caacgttgct gaaagaactt ataataatat atttcaattt catcaacttc ggcagattgc caaagaacta aacattcagg ttgctgattt tgaaaatttt attggatcac taaatgacca gggttacctc ttgaaaaaag gcccaaaagt ttaccagctt caaactatgt aa
Molecular Weight	97,932 Da
OMIM	608187
Vector	pENTR223.1
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for MCM8 cdna clone	MBS1267018 is a cDNA clone targeting MCM8.
Other Notes	Small volumes of MCM8 cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MCM8. It may not necessarily be applicable to this product.

NCBI GI #	39644543
NCBI GeneID	84515
NCBI Accession #	BC008830
UniProt Secondary Accession #	Q495R4; Q495R6; Q495R7; Q86US4; Q969I5; B2RBG7; D3DW08; E7EQU7
UniProt Related Accession #	Q9UJA3
NCBI Official Full Name	Homo sapiens minichromosome maintenance complex component 8, mRNA

NCBI Official Synonym Full Names	minichromosome maintenance 8 homologous recombination repair factor
NCBI Official Symbol	MCM8
NCBI Official Synonym Symbols	POF10; C20orf154; dJ967N21.5
UniProt Protein Name	DNA helicase MCM8
UniProt Synonym Protein Names	Minichromosome maintenance 8
Protein Family	DNA helicase
UniProt Gene Name	MCM8
UniProt Synonym Gene Names	C20orf154
UniProt Entry Name	MCM8_HUMAN
NCBI Protein Information	DNA helicase MCM8
NCBI Summary for MCM8	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 mini-chromosome maintenance proteins is a key component of the pre-replication complex and may be involved in the formation of replication forks and in the recruitment of other DNA replication related proteins. This protein contains the central domain that is conserved among the mini-chromosome maintenance proteins. The encoded protein may interact with other mini-chromosome maintenance proteins and play a role in DNA replication. This gene may be associated with length of reproductive lifespan and menopause. Alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Jul 2013]
UniProt Comments for MCM8	MCM8: Component of the MCM8-MCM9 complex, a complex involved in homologous recombination repair following DNA interstrand cross-links and plays a key role during gametogenesis. The MCM8- MCM9 complex probably acts as a hexameric helicase downstream of the Fanconi anemia proteins BRCA2 and RAD51 and is required to process aberrant forks into homologous recombination substrates and to orchestrate homologous recombination with resection, fork stabilization and fork restart. May also play a non-essential for DNA replication: may be involved in the activation of the prereplicative complex (pre-RC) during G(1) phase by recruiting CDC6 to the origin recognition complex (ORC). Binds chromatin throughout the cell cycle. Belongs to the MCM family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Cell cycle regulation; EC 3.6.4.12 Chromosomal Location of Human Ortholog: 20p12.3 Cellular Component: nucleoplasm; nucleus Molecular Function: protein binding Biological Process: DNA replication; female gamete generation; G1/S transition of mitotic cell cycle; male gamete generation; response to DNA damage stimulus Disease: Premature Ovarian Failure 10
Research Articles on MCM8	**1.** MCM8, a component of the pre-replication complex, is crucial for gonadal development and maintenance in humans-both males and females. These
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